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ABSTRACT

This report is an attempt to classify and interpret the new pieces of state legislation influencing the teaching occupation: how teachers are trained, licensed, inducted, and compensated. The historical basis of recent teacher reforms and the concepts of teaching that these new policies embody are analyzed. Examined are trends in state teacher policies governing certification and compensation implemented between 1978 and 1986. Analysis was based on interviews with state officials, examinations of policy documents, and reports of state policy actions compiled by a variety of education organizations. The report is compiled into three divisions: (1) recent trends in teacher certification; (2) recent trends in teacher compensation; and (3) teacher policy in review. Sixty references are included. (SI)

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The Evolution of Teacher Policy

Linda Darling-Hammond
Barnett Berry

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40 Years 1948-1988

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March 1988

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CPRE
CENTER FOR POLICY RESEARCH IN EDUCATION

Center for the Study of the Teaching Profession

PREFACE

The initial research for this report was conducted for the U.S. Department of Education's Office for Educational Research and Improvement under the sponsorship of the Center for Policy Research in Education. Additional funds for the completion and publication of this report were provided by RAND's Center for the Study of the Teaching Profession. As part of its mission to investigate trends in state educational reform, CPRE undertook to examine the nature of rapidly changing teacher policies. The report is an attempt to classify and interpret the literally hundreds of new pieces of state legislation influencing the teaching occupation: how teachers are trained, licensed, inducted, and compensated throughout their careers.

These policy changes are occurring as part of a major educational reform movement, one that has adopted a new theory of how schools may be improved by professionalizing teaching. The authors seek here to place state teacher initiatives in the context of this emerging paradigm and to evaluate both the policies' content and their conceptions of teaching.

The report should be useful to policymakers, researchers, and members of the education profession as they seek to understand and keep track of the voluminous legislation foreshadowing changes in the teaching profession, their implications for the composition of the teaching force, and the nature of teaching work.

SUMMARY

During the 1980s, virtually every state enacted legislation to reform teacher education, licensing, and compensation. In all, over 1,000 pieces of legislation regarding teachers have been developed over the course of the decade, and a substantial fraction have been implemented. These initiatives represent an important shift in policy focus from earlier decades, when state statutes mandated tighter controls over teaching in an effort to raise educational standards by prescribing the form and content of schooling. Critics, however, saw the increasing number of regulations as restrictions on a teacher's professional judgment about how best to serve students' needs. Partly in reaction, the emphasis of reform proposals shifted in 1986 toward decentralizing school decisionmaking and professionalizing teaching—using rigorous preparation, certification, and selection to ensure teaching competence in exchange for fewer rules prescribing what is to be taught, when, and how. Teacher policy changes in recent years are a first step toward this new paradigm of educational improvement. While the new paradigm emerges, however, the old one remains in force, thus pulling the education system in contradictory directions.

It is too soon to tell whether these efforts to improve education by professionalizing teaching will be successful. But we can gain some insight into the probable outcomes by analyzing both the historical basis of recent teacher reforms and the concepts of teaching that these new policies embody. To do this, we examined trends in state teacher policies governing certification and compensation implemented between 1978 and 1986. We based our analysis on interviews with state officials, examination of policy documents, and reports of state policy actions compiled by a variety of education organizations and associations.

THE EVOLUTION OF TEACHER PROFESSIONALISM

Professionalization represents the extent to which members of an occupation share a common body of knowledge and use shared standards of practice in exercising that knowledge on behalf of clients. It incorporates conditions of specialized knowledge, self-regulation, special attention to the unique needs of clients, autonomous performance, and a large dose of responsibility for client welfare. In all occupations that claim the term, professionalism exists in some tension with

alternative forms of regulation and accountability, with continual adjustments made on all sides to enhance the public good.

The first American reforms to professionalize teaching occurred over a century ago when Horace Mann established the first state normal school for the training of teachers in 1839. At the turn of the century the progressives took up the charge, pressing for professional schools of education analogous to those in law, medicine, and the applied sciences, to support universal education. The progressives argued as well for a restructuring of schooling to replace the factory approach to knowledge production with a more child-centered approach.

The criticisms of the reformers of the 1980s—that our schools provide most children with an education that is too rigid, too passive, and too rote-oriented to produce learners who can think critically, synthesize and transform, experiment and create—are virtually identical to those of the progressives at the turn of the century and again in the 1960s. Then, as now, the notion was advanced that professionalization of teaching is linked to the provision of universal high-quality education. But these earlier attempts at reform failed to take hold in any substantial way. In each of its iterations, progressivism gave way to standardizing influences, in the efficiency movement of the 1920s, the teacher-proof curricular reforms of the 1950s, and the "back to the basics" movement of the 1970s.

Nonetheless, over the course of this century, teaching has continued to move toward professionalization. The educational requirements for teachers have continued to rise, as have their salaries, though in fits and starts during times of teacher shortages causing public attention. On the other hand, increasing public regulation of teaching has decreased the control of teachers over what is taught and how it is taught, lessening their professional responsibility and autonomy. And standards for entry into the profession have continued to fluctuate when the demand for teachers exceeds the readily available supply.

The tension between public and professional control of teaching has created a conflict between reform conceptions throughout the century that is represented again in the different emphases of the "first" and "second wave" reforms of the 1980s. As we trace the evolution of the recent teaching reforms, we examine how they address both the public and professional prerogatives, as well as the form and policy content they have adopted.

TEACHER PREPARATION AND CERTIFICATION

Policies affecting teacher training and certification are designed to screen potential teachers for quality and to encourage more rigorous preparation. Although major changes in these areas have occurred across the states, they do not yet reveal a common perception of what prospective teachers should know and be able to do.

Requirements for Entering Teacher Education

Stiffer requirements for admission to teacher preparation programs are intended to upgrade the academic quality of teacher education students. Recently mandated by 27 states, the requirements include tests of academic ability and minimum grade point averages. By specifying requirements in this area, these states have assumed a role in decisions that were formerly the sole responsibility of individual institutions of higher education.

Programmatic Requirements for Teacher Education

The majority of states have specified a program of courses required for teacher certification; recent reforms have tended to emphasize liberal arts and subject matter courses at the expense of education coursework. A few states have even placed a ceiling on the allowable number of education courses that candidates may take. Many have also required more hours of field experience. Some have tightened requirements for program approval, including reflection of state-mandated "competencies" in course content. In contrast, a few states have deregulated course requirements and evaluate teacher preparation programs on the basis of broad standards of teacher knowledge, and curriculum and practicum coverage. This approach more closely approximates the ways in which other professions are regulated, where outcome standards are established and professional schools are free to determine how they can best be met.

Paradoxically, for a number of states, improving teacher preparation seems to mean reducing the amount of time devoted to traditional teacher education. Although the goal is, in part, to increase candidates' preparation in their subject matter disciplines and the liberal arts, the effect is also to decrease pedagogical preparation. To the extent that there is a conception of teaching underlying these moves, it is a view that liberally educated students require little more than guided practical experience to learn how to teach effectively. The claims to a specialized knowledge base that undergird the development of a profession

have fallen on deaf ears in these states. Other states, however, are moving toward a five-year program of teacher education, which may accommodate the demands for liberally educated teachers who are also highly trained for their work.

Credentialing Requirements for Specific Subjects or Grades

To ensure an adequate supply of teachers, many states have employed teachers with emergency credentials or have allowed teachers to teach out-of-field. In 1983, 46 states allowed substandard, limited, or emergency certification, and 27 of these states allowed these certificates to be issued to teachers who did not hold a bachelor's degree. This practice undermines the tenet of professions that only those who have mastered the specialized knowledge base will be admitted to practice, and only in those fields for which they are qualified.

In the past, many states have also certified teachers provisionally or along broad categories. Broad certification policies generally mean that a teacher certified in kindergarten through eighth grade is "legally" allowed to teach any grade or subject in grades K-8. Or a teacher certified in "secondary science" may teach high school chemistry and physics even though his primary area of preparation is in middle school biology. In response to the public concern that teachers are not adequately prepared in their field of study, some states have recently begun to require specific credentialing in a teacher's subject matter and for the grade level in which he or she teaches. Others have eliminated provisions allowing teaching outside a teacher's field of preparation.

For every one of these moves to tighten certification requirements, however, others have been taken to loosen or waive such requirements to counteract teacher shortages. Although virtually all states had provisions for temporary or emergency certification before 1983, some have added additional provisions to allow individuals who have not taken education courses to teach or have created new classes of emergency certificates.

Alternative Routes to Teacher Certification

Decreases in the number and perceived quality of teacher education graduates throughout the 1970s and early 1980s have stimulated many states to create new provisions for the certification and employment of teachers other than through the traditional route of completing the requirements of a state-approved teacher certification program. Typically, alternative programs require more field experience and supervision and fewer (and more abbreviated) education courses. Like other

nonstandard forms of state certification, alternative routes deemphasize the importance of acquiring a professional knowledge base before gaining license to practice.

The number of states that are now implementing alternative routes to certification has jumped from eight in 1984 to 23 in 1986. It is too soon to tell whether, in the face of pressures for improved teacher education and with increased inducements to teaching, alternative certification programs will long survive. Many such programs existed in the 1960s when teacher shortages were acute, but disappeared when the shortages eased.

Teacher Competency Testing

By 1986, 46 states had mandated teacher competency tests in basic skills, subject matter, or professional knowledge as a requirement for admission to teacher education or for certification or both. Of the three most prevalent types of competency tests, basic skills tests have been most readily enacted and implemented in states. In recent years, a few states have added on-the-job performance assessments of first-year teachers as a requirement for continuing certification.

Some states have mandated teacher competency testing but have delayed its implementation because of lack of funding for test development or validation or because of concerns about the reliability and validity of the tests available. Some of these concerns are the result of racially disparate test outcomes and fears of attendant lawsuits. Others stem from growing skepticism about the appropriateness of test content, especially for tests of professional knowledge. Among those states that have been the last to mandate tests for certification are several that are moving beyond the paper-and-pencil, multiple-choice examinations used for teacher testing in most states. Several states are studying the feasibility of establishing Professional Standards Boards that would reflect the profession's concept of what teachers ought to know.

Programs for New Teachers

Programs to assist and assess new teachers on the job are spreading rapidly. In part because of a sense that existing paper-and-pencil tests do not adequately capture the ability to apply relevant teaching knowledge, some states have added on-the-job performance assessments to their other testing requirements for certification. Of the 25 states that have determined the structure of their beginning teacher programs, 18 have chosen to require that their beginning teachers pass

a formal performance assessment before receiving full certification. Six other states have chosen to emphasize only the support component of their beginning teacher programs.

In states that employ on-the-job assessment as a certification requirement, the beginning teacher is observed and evaluated two to three times in a year by an evaluator or team of evaluators using a state-developed instrument. The most typical assessment model looks for "generic" behaviors that are assumed to indicate teaching competence independent of subject matter, age of students, or purpose of the lesson. Research suggests that this approach ignores the larger range of context-specific actions and decisions that are central to good teaching.

In beginning teacher programs that use on-the-job performance assessment as a basis for licensure, the respective roles of the state and local employers are entangled in unusual ways. Some districts have objected to the practice because of concerns that evaluation for licensure may become confused with evaluation for employment. Others have raised concerns about the lack of resources for implementing the evaluation and support requirements in many states. Nonetheless, the practice is spreading quite rapidly, and it will be some time before the benefits, difficulties, and long-range consequences of this delegation of authority are well understood.

Recertification

Until recently, most states had few, if any, requirements for teachers to satisfy once they were initially certified. However, more states are disallowing the "life" certificate—requiring teachers to continuously renew their credentials with additional formal college coursework or inservice training. Thirty-two states now require teachers to renew their certificates on a continuing basis.

Over the last few years, the trend has been to enact more stringent recertification standards. In the past, many states have not specified the quality or nature of the courses required. More states are now requiring teachers to successfully complete courses in content areas applicable to their teaching field. In three states—Arkansas, Texas, and Georgia—experienced teachers have to pass competency examinations to be recertified. In two of these, the tests are basic skills assessments. In the third, teachers are tested in their subject matter areas and are required to pass a performance assessment before they can be recertified.

Assessment of Certification Policies

Recent changes in teacher education, certification, and recertification pose many new screens for entry and continuation in the teaching profession. These changes have occurred at a breathtaking pace over the last six or eight years, and the cumulative effects will be difficult to assess for several years. Clearly, though, the policies do not reflect a consensus within the profession or across states of what teachers ought to know or be able to do. Instead, taken as a whole, the policies demonstrate that policymakers are pursuing different theories about what will improve teaching. One theory, which may be called bureaucratic in orientation, assumes that specialized knowledge for teaching is unnecessary because techniques, tools, and methods can be prescribed from above; they need not be crafted by teachers themselves. The other theory, which may be called professional in orientation, assumes that pedagogical preparation is essential, because teachers must be capable of making complex educational decisions on behalf of diverse students.

The various legislative initiatives embody the long-standing tension between the view of teachers as semiskilled workers who simply implement standards hierarchically imposed, and the vision of them as skilled professionals who apply specialized knowledge to meet the unique needs of each student. By and large, the reforms to date reflect the first vision more clearly than the second. Exceptions are states like Connecticut, California, Minnesota, and Washington, where policymakers and practitioners are focusing on the content as well as the existence of standards, trying to improve the quality of instruction and to create long-term incentives for talented individuals to become teachers.

TEACHER COMPENSATION

The policies governing teacher certification, which are designed to raise the quality of teachers, also limit the pool of potential teachers. Policies governing compensation and other incentives will determine whether there will be an adequate supply of individuals able and willing to meet the requirements. Teacher pay was formerly a local issue. Recently, however, state legislatures and state boards have begun to set teacher compensation policies in a number of areas.

Salary Increases

In 1985–86, the average public elementary and secondary school teacher's salary was $25,240, up 31 percent from 1981–82, but just equivalent to the real value of average teacher salaries in 1971–72. When salaries are adjusted for years of experience the more experienced teaching force now is, on average, still about 15 percent worse off than their less experienced counterparts were 15 years ago. In the past two years, salaries for beginning teachers have risen the most steeply. These increases have both benefits and disadvantages. They have reduced, but not eliminated, the gap between the entry-level wages of beginning teachers and those of college graduates in other fields. But they have also narrowed the overall salary range for teachers, thus potentially making teaching a less attractive long-term career.

Minimum Salaries and Salary Schedules

Thirty states have mandated minimum compensation levels. In some cases, this level is substantially below the average starting salary in the state; in other cases, the minimum is above the previous year's average. Nineteen states have also established statewide salary schedules on which teachers advance, usually one step for each year of experience. Many states have mandated statewide minimum or overall salaries for the first time during the last five years. If the state lacks a salary schedule, teacher salaries are determined by local districts in collective bargaining between school boards and teachers' associations.

In states with salary schedules, pay increases depend more on the legislature's willingness to upgrade the schedule. Although creating a statewide compensation system may increase teachers' pay within a state, on average the salaries of teachers in states with mandated schedules are somewhat lower than those in states without such schedules. This is largely because mandated schedules predominate in the traditionally lower-paying Southern states. Typical schedules are flat and guarantee smaller increases as years of experience mount. This flat compensation structure is one of the factors that has given rise to proposals for career differentiation and performance-based compensation.

Performance-Based Compensation

Between 1983 and 1986, almost all states considered some kind of performance-based compensation system—for example, merit pay, career ladder, master or mentor teacher, or incentive pay. States often

combine different systems and define programs differently, but there are some general trends in recent years, including: a tendency to avoid calling programs "merit pay"; a shift away from state-designed and state-mandated programs to locally designed approaches with voluntary participation; an emphasis on career ladder programs; piloting of other performance-based and teacher incentive programs; and modifications or delayed implementation of programs because of problems associated with performance evaluation, eligibility requirements, and funding.

Solutions to these issues have been difficult to reach in the past. Performance-based pay plans flourished for a brief time during the 1920s and 1950s, but subsequently disappeared. Real increases in teacher compensation have tended to evaporate when shortages subside. Many attempts to create merit pay programs in the early 1980s have since been abandoned and replaced with less costly or controversial incentives. Performance-based compensation systems require substantial, long-term financial commitments. Budget constraints have caused some states that enacted programs to delay implementation, or to continue pilot projects instead of proceeding with statewide implementation.

Sustained changes in teacher compensation levels and structures will depend not only on finances, but on the ability of states, districts, and teachers to resolve the political and technical issues associated with identifying and rewarding teacher performance. Over the years ahead, we will see whether the commitment to such changes runs deeper than it has in reform eras gone by.

Assessment of Compensation Policies

Generally speaking, the short-term goals of reforms in teacher compensation have been achieved. Teachers' salaries are no longer a blatant disincentive to enter the profession, and the concepts of teacher testing and pay-for-performance are at least tolerable to teachers. But if the reforms are to persist, both the public and teachers will have to be convinced that the policies are educationally meaningful—for example, that teachers who pass competency tests really know more about teaching, that career ladders really encourage talented people to choose and remain in teaching, that master teachers really make schools more effective and students better off. Furthermore, working conditions for teachers—which complement and compensate for salary differentials—must also improve if sufficient attractions to teaching are to be sustained. In the second wave of reform, attention will need to focus on the substance as well as the form of policies, and on the long-range effects of implementing them.

THE GOVERNANCE OF TEACHER POLICY

Teacher policy activity in the 1980s has placed firmly under the state's purview many aspects of teacher education, licensure, and compensation that were not previously targets of state regulation. The menu of state teacher policies has evolved from a fairly simple and somewhat heavy-handed set of efforts to exert control over the quality of the teaching force to a much more complex portfolio of screens and magnets for teaching, with an increased role for local school districts and teachers themselves.

By sheer volume of legislation, it is clear that teaching has been "reformed." Tallies of teacher policies, though, do not tell the whole story about reform impulses and effects. When one peers inside the statutes and regulations, what is most evident is the acute ambivalence that many policymakers feel about the nature of teaching and the roles of teachers.

Many players are making a bid for governance of teacher policy, and the extremely rapid changes in policies have generated some paradoxical outcomes. For example, some states that have implemented more specific standards for teacher education and licensure have also created alternative routes to certification that bypass the requirements. States have assumed responsibility for decisions previously made by other institutions—for example, making admission decisions formerly made by institutions of higher education. On the other hand, they have also delegated previously state-controlled decisions to local employers—for example, letting school district personnel decide whether to award continuing state licenses to beginning teachers.

Policymakers have stimulated and enforced changes in the structure of teaching. They must now refine their policies in ways that best serve the public good. The next generation of teacher policy reform will need to focus on the content and nature of effective teaching, its assessment, and its deployment within schools to ensure that the long-range goals of the reformers are met. It is at this juncture that the involvement of the profession is critical, for state policy can constrain but not construct the conditions under which knowledge about teaching is produced, transmitted, and employed on behalf of those students who are its ultimate beneficiaries. The current challenge is to determine which matters should be further refined through legislation and which should be left to local districts, schools, teachers, and professional bodies, and to find mechanisms for delegating them responsibly.

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I. INTRODUCTION

The decade of the 1980s has witnessed a remarkable resurgence of interest in and concern about the nation's teaching force, demonstrated in part by the fact that virtually every state has enacted new policies governing teacher education, licensing, and compensation. These changes represent important shifts in the ways that policymakers think about educational improvement and teaching, and may signal the emergence of a new paradigm for educational policymaking as well. In the rhetoric of the current reform movement, that paradigm posits the "professionalization" of teaching as a means for improving education—in counterpoint to, and as a partial replacement for, state prescription of educational processes and outcomes.

This report summarizes changes in state teacher policies between 1978 and 1986, discusses the context and rationales for those changes, and analyzes the evolution of these policies to describe recent trends and future directions. Our analysis is intended to (1) illuminate similarities and differences in the ways that states have approached teacher policy reform, (2) reveal changes in policy types and targets over this period of time, and (3) assess the changing conceptions of teaching that underlie these policy changes.

The data presented here are drawn from interviews with state officials conducted for this project by the Education Commission of the States in 1986, supplemented by other reports of state policy actions by numerous researchers and organizations such as the American Association of Colleges for Teacher Education, the Education Commission of the States, the American Federation of Teachers, and the Educational Testing Service.

THE POLICY CONTEXT

The First Wave of Reform

The "first wave" of American educational reform in the 1980s was launched by the release in 1983 of the National Commission on Excellence in Education's report, *A Nation at Risk*. This report pointed to several indicators of the risk before the nation: too many students who were functional illiterates, too few students who had acquired higher-order intellectual skills, declining scores on the Scholastic Aptitude Tests and on tests of scientific achievement, increasing performances

of students overseas, and the increasing productivity of foreign competitors (National Commission on Excellence in Education, 1983).

The "excellence" movement spawned by the commission's report and dozens more that followed was, like its precursors in the 1920s and the post-Sputnik years of the 1950s, a call to arms for higher standards. The reforms called for—and enacted in many states—included increased course requirements for high school graduation, increased testing of students, more carefully specified curricular guidelines, and more structured planning and reporting of school activities and outcomes by local districts. The theory underlying these reforms is that greater specification of school processes and outcomes will improve educational quality.

Although *A Nation at Risk* is often credited as having stimulated renewed state activity to improve education, most of the policies enacted immediately in its wake were in fact extensions of the kinds of policy initiatives begun much earlier. Between 1969 and 1974, state legislatures enacted at least 66 laws encouraging school accountability through management and budgeting reforms, planning and evaluation procedures, and statewide assessment of student performance. By 1979, 21 states had adopted or authorized measures of basic skills proficiency as requirements for student graduation, and all 50 states had undertaken some legislative or state board activity in the area of setting standards for schools or students (Darling-Hammond and Wise, 1981). By 1983, 38 states had mandated student testing requirements, 35 had launched new curriculum development efforts, and 30 had imposed district- or school-level planning requirements (ECS, 1983).

Coincident with, and partially in response to, the public attention focused on the excellence commission reports, "many states initiated new activities, intensified their present activities or reallocated resources (both dollars and personnel) to provide a more comprehensive and integrated approach to quality education" (ECS, 1983). The Education Commission of the States (1983, pp. vi-vii) categorized these activities as follows:

1. New state-developed curricula or curriculum guides, often coupled with a coordinated instructional delivery system;
2. New school accreditation standards, requirements for local district and school planning, and expanded state review of local instructional programs;
3. Comprehensive school improvement programs, usually requiring a process of local needs assessment, program redesign, monitoring of student performance, and changes based on evaluation data;

4. State-initiated dissemination and adoption assistance programs;
5. Student testing programs and new requirements for the uses of student test data for decisions pertaining to both students and programs;
6. Activities focused on improving the capabilities of the education work force, primarily new certification and training requirements;
7. Initiatives aimed specifically at improving mathematics, science, and technology instruction in schools.

All but the last two of these areas of policy initiative were well under way before 1980 and the "excellence" reforms. The expansion of policy focus after 1980 to include teacher competence and students' technological proficiency came about through a reformulation of the educational reform "problem," as expressed in *A Nation at Risk* and subsequent reports. These reports have emphasized the need to adjust our system of public education to meet the demands of America's role in a changing world economy. Asserting that our present educational system inadequately prepares students for jobs in an increasingly technological society, the reformers have argued that America's "once unchallenged preeminence in commerce, industry, science, and technological innovation" is at stake (National Commission on Excellence in Education, 1983, p. 1).

The problem is characterized as follows: Our present educational system—which evolved from an economy based in large part on mass production and routinized jobs requiring low-skill labor—is antiquated; teachers must, in the future, not only transmit basic skills to students but convey highly technical knowledge and stimulate them to think critically about the widening range of complex issues they will face in their lives and careers. This requires not only curricular changes but also a concerted effort to attract and retain in schools those bright and creative teachers who themselves possess the capacities desired for students.

This reformulation of the goals of educational reform and the solutions required converged with public recognition of some disturbing trends concerning the supply and quality of our nation's school teachers. About the time that the excellence commissions were getting in gear, a number of studies indicated that the supply of college students preparing to teach had decreased sharply since 1970, that prospective teachers were scoring lower on tests of academic ability than their counterparts who chose to enter other professions, and that the more academically able new entrants tended to leave the classroom earlier

and in greater proportions than their colleagues (Schlechty and Vance, 1981; Weaver, 1983; Darling-Hammond, 1984).

These trends were particularly troublesome in light of increasing demand for new teachers caused by rising student enrollments and anticipated increases in teacher retirements. These factors are expected to produce between 1 million and 1.5 million teacher vacancies between 1987 and 1992 (NCES, 1985a; Darling-Hammond, 1987), suggesting annual hiring rates nearly double those of the late 1970s. The supply of newly graduated teaching candidates is expected to satisfy only about 60 percent of this demand.

State legislators and governors began to take heed and take action. Between 1983 and 1985, more than 700 pieces of state legislation aimed at upgrading the quality of the teaching force were developed (McLaughlin et al., 1985). Since then, many more have been initiated. Whereas educational policies of the 1970s focused on changing school finances, management, and curricula, by 1985, attention had clearly shifted to the development of teacher policies—specifically, tighter entry requirements to weed out incompetents and incentives to attract and retain talented individuals in the profession.

Perceiving that their own state economies are at stake, governors, business leaders, and legislators have led the charge to assess teacher competency by means of proficiency tests and tougher evaluations and to provide incentives for attracting teachers through alternative routes to certification as well as salary increases, merit pay programs, and career ladder plans. In their efforts to reverse the decline of educational standards and the quality of the teacher workforce, these policymakers have created what has been termed the "first wave" of educational reform.

By mid-1986, 46 states reported the use or development of statewide tests for teacher certification or entry into teacher preparation (Sandefur, 1986). At the same time, nearly half of the states now allow alternative routes to teacher certification that do not require completion of a traditional teacher preparation program (Feistritzer, 1986). Changes in certification and recertification requirements have been made in most states; some have also developed highly specific systems for on-the-job evaluation of beginning and veteran teachers.

Teacher compensation has also increased by over 35 percent on average since 1980. In 1985–86, the nationwide average teacher salary was $25,240. However, adjusted for inflation, these salary increases have just enabled teachers to regain the purchasing power they had in 1971–72, and adjusted for the increased experience of the teaching force, they lag behind the 1971–72 levels by about 15 percent (Nelson et al., 1986). Perhaps more important, compensation structures are

also changing. By the end of 1986, more than half of the states had taken some action to incorporate financial incentives in the compensation structure through career ladders or other incentive plans (Pipho, 1986).

Without question, the first wave of reform has significantly affected teachers and teaching. However, these initiatives may be only the start of a teacher policy revolution that could radically transform the occupation and the educational system.

The Second Wave of Reform

The "second wave" of American educational reform was heralded in 1986 with the release of a new batch of reports by the Carnegie Forum on Education and the Economy, the National Governors' Association, the Education Commission of the States, and the Holmes Group of education deans, among others. Though differing in some specifics, the new reports are united in their insistence on the need to improve education by improving the status and power of teachers, and by "professionalizing" the occupation of teaching.

These reports reaffirm the importance of competent teachers for improving American education, and the necessity of such improvements for America's future economic welfare. However, they go further in redefining the educational reform "problem" by arguing that lasting improvements will occur only if decisions about education are both decentralized and professionalized. That is, they must reflect teachers' and principals' best professional judgments on behalf of students, rather than being shaped solely by procedures that emanate from higher bureaucratic offices. These regulations, according to the Carnegie Forum (1986), stifle innovation and undermine local leadership, creating a situation in which "everyone has the brakes but no one has the motors" to make schools run well.

In policy terms, the second wave reformers suggest greater regulation of teachers—ensuring their competence through more rigorous preparation, certification, and selection—in exchange for the deregulation of teaching—fewer rules prescribing what is to be taught, when, and how. This is, in essence, the bargain that all professions make with society: For occupations that require discretion and judgment in meeting the unique needs of clients, the profession guarantees the competence of members in exchange for the privilege of professional control over work structure and standards of practice. The theory behind this equation is that professional control improves both the quality of individual services and the level of knowledge in the profession as a whole. This occurs because decisionmaking by well-trained

professionals allows individual clients' needs to be met more precisely, and it promotes continual refinement and improvement in overall practice as "effectiveness" rather than "compliance" becomes the standard for judging competence.

Clearly the first wave policy reforms stimulated significant changes in the training, licensure, and remuneration of teachers. However, most of these reforms, developed by politicians and business leaders, mandated tighter controls over both teachers and teaching. The second wave reformers call for teachers themselves to be "empowered" to control the standards of teaching.

The second wave reports simultaneously recommend moves that will strengthen the teacher's role and replace bureaucratic mandates with professional and market accountability mechanisms. These include recruitment incentives and more competitive salaries for teachers; more rigorous teacher education and structured internships; more decision-making responsibility for experienced teachers with proven expertise; and changes in the work structure to legitimize teachers' efforts at collegial problem-solving while reducing the bureaucratic stranglehold on innovation. The notion is that ensuring greater competence in the teaching force, and then allowing it to be used, will reduce the need for rule-based decisionmaking that ultimately leads to the trivialization of school work and the stifling of creative endeavor.

The Carnegie Forum recommended, and the governors endorsed, the creation of a National Teaching Standards Board to certify teachers who demonstrate high levels of knowledge in their fields and, thereby, to articulate professional standards of practice. The board's examinations would be the first teacher examinations in the United States developed and controlled by members of the profession rather than by governmental agencies. The Holmes Group proposed changes to strengthen and increase the duration of teacher education. All of the reports spoke of the need to "restructure" schools and the teaching career to make possible the transition to a professional model of teaching and instruction.

Simply stated, the second wave reports are conceptual frameworks intended to transform teaching from an occupation to a profession. Although these reports praised the accomplishments of the first wave reforms for focusing public attention on the importance of quality teachers and moving to enact new standards, they noted certain limitations as well. As the Carnegie Forum (1986, p. 26) put it:

> Many of the best people staffing our schools, people who meet the requirements we have just laid out, are immensely frustrated—to the point of cynicism . . . . They see little changes that matter most to them, few policy developments that would enable them to meet the

> needs that have just been described. They see the bureaucratic structure within which they work becoming even more rigid, and the opportunities for exercising professional judgment becoming even more limited. Increasingly, they believe that teachers are being made to pay the price for reform, and they do not believe that the current conception of reform will lead to real gains for students.

Other observers, too, have noted that most of the first wave reforms have been in the form of regulation—in particular, regulations that restrict a teacher's use of his or her professional judgment in serving the needs of students. National Education Association president, Mary Futrell (1986, p. 6) has cited the assertion of Ernest Boyer, president of the Carnegie Foundation for the Advancement of Teaching, that "a full 90 percent" of the legislative acts that have been termed educational reform have in fact been regulations. She argues that these regulations "severely restrict teachers' rights to use their own judgment . . . and dwell on the quantitative, on what is countable, easily measured, and reducible to checklists."

Teachers' lack of enthusiasm for the first wave reforms may be in part a consequence of their lack of involvement in defining the problem as well as the solutions. The first wave of teacher policy reform emerged not from within the teaching profession itself, but from the broader policy arena. In many instances, even as the target of policies, teachers were excluded from the process because policymakers believed that the profession could not be trusted to reform itself. Unfortunately, this lack of trust works both ways. As the Carnegie report asserted:

> There is a real danger now of political gridlock, a situation in which those who would improve the schools from the outside are met by teachers on the inside who, because they distrust policymakers' motives and disapprove of their methods, will prevent further progress (p. 26).

But teachers and their representatives are becoming more vocal and engaged in the process of shaping the reform agenda. The Holmes group of education deans has expanded its membership and is working to define the substance as well as the form of professional teacher education. The National Education Association and the American Federation of Teachers are working to define professional roles for teachers, both through collective bargaining agreements at the local level and through efforts to promote policy changes. These include the establishment of state teaching standards boards in the case of the NEA and the creation of internship programs using peer supervision for new teachers in the case of the AFT. The National Science Teachers Association has defined its own certification standards for science teachers,

and other teacher groups are following suit. Though the profession does not speak with a unified voice, it is, at least, speaking and, to some extent, being heard.

How will the teaching profession emerge from these waves of reform? To what extent will the occupation of teaching provide sufficient inducements to attract and retain talented members in its ranks? To what extent will those members be well-trained and empowered to use their knowledge on behalf of students? How will schools—and the profession—be organized and governed? How will the public interest in educational quality, equality, and accountability be served?

Though these questions cannot yet be answered, we can gain insights into the evolution of teaching reform both by placing the current efforts in some historical perspective and by analyzing the course of current policymaking.

THE EVOLUTION OF TEACHER PROFESSIONALISM

Professionalization is not a dichotomous event or a state of grace into which an occupation clearly falls or does not. Rather, it describes points along a continuum representing the extent to which members of an occupation share a common body of knowledge and use shared standards of practice in exercising that knowledge on behalf of clients. It incorporates conditions of specialized knowledge, self-regulation, special attention to the unique needs of clients, autonomous performance, and a large dose of responsibility for client welfare.

In all occupations that claim the term, professionalism exists in some tension with alternative forms of regulation and accountability, with continual adjustments made on all sides to enhance the public good. Viewed in this context, we can examine the evolution of teacher policy as the process of professionalization in counterpoint with other conceptions of how education should be organized, supported, and governed.

The first American reforms to professionalize teaching occurred over a century ago when Horace Mann established the first state normal school for the training of teachers in 1839. Mann argued tirelessly that educational improvement depended both on increased public support, including state involvement, and on the careful selection, advanced training, and improved status and authority of teachers.

At the turn of the century the progressives took up the charge, pressing for professional schools of education analogous to those in law, medicine, and the applied sciences, to support universal education. Their establishment in many universities, albeit with less status than

those they sought to emulate, is, according to historian Lawrence Cremin (1965), "one of the leading educational developments of the twentieth century." "But," he notes, "they have always been under attack from faculties of arts and sciences, and in recent years that attack has grown sharper" (p. 104).

Meanwhile, the progressives argued as well for a restructuring of schooling to replace the factory approach to knowledge production with "its passivity of attitude, its mechanical massing of children, its uniformity of curriculum and method" (Dewey, 1900, p. 34) with a more child-centered approach. The criticisms of the second wave reformers of the 1980s—that our schools provide most children with an education that is too rigid, too passive, and too rote-oriented to produce learners who can think critically, synthesize and transform, experiment and create—are virtually identical to those of the progressives at the turn of the century and again in the 1960s. Indeed, with the addition of a few computers, the Carnegie report's scenario for a 21st century school is virtually identical to John Dewey's account of the 20th century ideal.

Then, as now, the notion was advanced that professionalization of teaching is linked to the provision of universal high-quality education. But these earlier attempts at reform failed to take hold in any substantial way. Cremin (1965) argues that "progressive education demanded infinitely skilled teachers, and it failed because such teachers could not be recruited in sufficient numbers." In each of its iterations, progressivism gave way to standardizing influences, in the efficiency movement of the 1920s, the teacher-proof curricular reforms of the 1950s, and the "back to the basics" movement of the 1970s.

These cycles represent the ongoing adjustments between two competing views of education, one centering on the state's interest in education and the other centering on the student's interest. Both points of view are necessary in a democratic society; each has its own strengths and weaknesses, producing inevitable tensions over the extent and nature of state regulation of schooling (Wise and Darling-Hammond, 1984; Green 1980).

In the first view, the state provides education to all children so that its economic, political, and social needs for an educated citizenry can be efficiently met. This perspective emphasizes standardized approaches to ensure that all students learn those things society has defined as necessary for the common welfare. It stresses the teacher's role as implementor of hierarchically imposed standards.

The second view sees education as a means for individual self-actualization with the development of individual student capacities as the major goal. This perspective—voiced both by progressives and proponents of individual choice—assumes that maximizing individual

welfare will maximize the welfare of society. It emphasizes flexible, student-centered approaches directed by keen understanding of students' needs and abilities. It stresses the teacher's role as skilled professional with a responsibility to apply specialized knowledge to the unique circumstances of each learner.

The first view may achieve social goals more efficiently, but risks alienating some students and failing to develop the full potential of others. The second view may attend more carefully to individual student learning, but risks missing the common educational experience society requires for its social and political purposes. The struggle for a suitable compromise can be seen in the cyclical swings that have characterized American educational reform.

Nonetheless, over the course of this century, teaching has continued to move toward professionalization. The educational requirements for teachers have continued to rise, as have their salaries, though in fits and starts during times of teacher shortages causing public attention (Sedlak and Schlossman, 1986). On the other hand, increasing public regulation of teaching has decreased the control of teachers over what is taught and how it is taught, lessening their professional responsibility and autonomy. And standards for entry into the profession have continued to fluctuate when the demand for teachers exceeds the readily available supply.

As Cremin notes (pp. 90–91):

> There is a tension here, of course, that has been at the heart of the popular educational system from the very beginning. On the one hand, there is the prerogative of the public to set policy, determine direction, and fix support: we speak of public *control*, not merely public sponsorship or public influence. On the other hand, there is the prerogative of the teaching profession to govern its own work, set standards, and determine the nature of teaching practice: the teacher is committed to teaching truth as he sees it and to following truth wherever it leads.

It is this tension that has created the conflict between reform conceptions throughout the century and that is represented in the different emphases of the first and second wave reforms of the 1980s. As we trace the evolution of the recent teaching reforms, we will examine how they address both the public and professional prerogatives, as well as the form and policy content they have adopted.

The next section of this report treats policies affecting teacher preparation and certification. Section III discusses policies influencing teacher compensation and the teaching career. The final section describes our conclusions and their implications for the future of teacher policy and the shape of the teaching profession.

II. RECENT TRENDS IN TEACHER CERTIFICATION

During the 1980s there have been dramatic changes in teacher certification policies. Public concern about the quality of the teacher workforce has produced a plethora of state policy mandates affecting teacher preparation and certification. These policies have triggered changes in a number of areas, including:

- Entrance requirements for teacher education;
- Programmatic requirements in teacher education;
- Specific credentialing requirements for subject area and grade level taught;
- Alternative routes to teacher certification;
- Teacher competency tests in basic skills, subject matter knowledge, and professional knowledge;
- Beginning teacher programs that assist and assess the teaching performance of new teachers; and
- Recertification requirements.

ENTRANCE REQUIREMENTS

New requirements for entry into undergraduate teacher education programs have been imposed in a number of states. These requirements are intended to upgrade the academic quality of teacher education students, which many perceived had declined over the 1970s. In some states, admissions requirements followed on the heels of initial experiences with certification testing: When many applicants failed the tests, it was felt that earlier screening would prevent those students less likely to pass from making unsuccessful career choices.

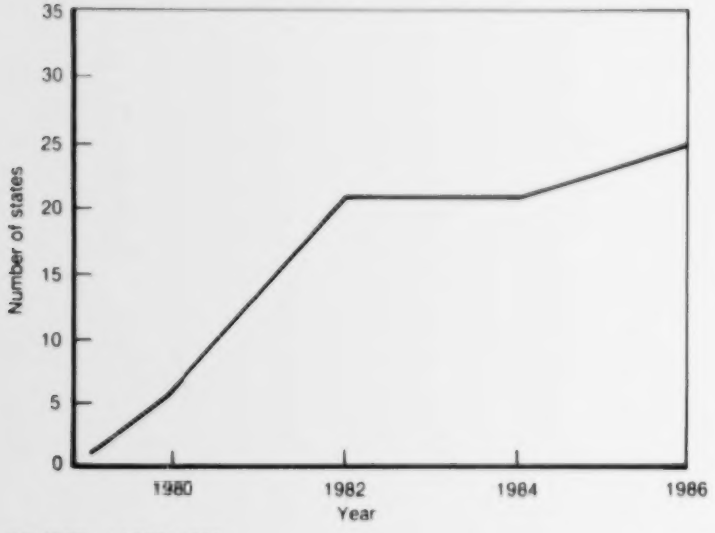
By 1986, 27 states had implemented policies requiring that certain levels of test scores or academic performance be demonstrated before admission to a college or university teacher education program. In the remaining 23 states, admissions criteria are controlled by the individual institutions. These new entrance requirements for teacher education programs include tests of academic achievement and ability, minimum grade point averages, and in some cases, practicum experience related to teaching.

In 1980, only six states required that a prospective teacher education student pass an achievement test before admission. Now, 25 states are

using either the California Achievement Test, the Scholastic Aptitude Test, or the pre-Professional Skills Test as instruments to assess the competency of prospective education students. As Fig. 1 indicates, most of the state mandates occurred between 1980 and 1982.

Some states have mandated that prospective education students obtain a minimum score on these admissions tests. Nationwide, SAT cut-off scores have ranged from 735 to 850 and ACT cut-off scores have ranged from 16 to 18. Correlations between the scores on these admissions tests and subsequent teacher certification tests are generally quite high (Galambos, 1986).

There has been a more recent statewide trend to mandate minimum grade point averages as admissions criteria. By 1986, 12 states had mandated that prospective education students earn at least a 2.0 GPA (on a 4.0 scale) before admission to their state's prospective teacher training program (Sandefur, 1986). Of these, three states—New Jersey, South Dakota, and Wisconsin—require a 2.5 GPA. State mandates



SOURCE: AACTE (1986)

Fig. 1—Number of states mandating competency tests before admission to teacher education programs, 1980–1986

such as these have been intended to enforce more rigorous teacher education admission standards.

However, many of the nation's schools, colleges, and departments of education[1] had already required minimum grade point averages as an admissions criterion before those laws were passed. An American Council on Education survey (ACE, 1985) noted that in 1980 approximately two-thirds of the nation's education schools had minimum grade point average requirements (from 2.2 to 2.5). Over the next five years, the proportion of schools of education with minimum GPA requirements remained relatively stable in private institutions, while increasing slightly in public institutions. By 1985, 76 percent of the public and 61 percent of the private schools of education had minimum GPA requirements for entry into secondary education programs.

Although fewer private institutions have had such requirements, when they did the requirements tended to be higher than in public institutions. In addition, the ACE report noted that major changes in GPA requirements over the last five years occurred in doctoral universities. By 1985, 59 percent of the secondary education and 45 percent of the elementary education programs (in doctoral universities) required GPAs of 2.5 to 2.9. These proportions had more than doubled since 1980, when 25 percent of the secondary and 21 percent of the elementary education programs required GPAs of 2.5 to 2.9.

Finally, some states—including Alabama, Kentucky, and New Jersey—are beginning to mandate "practical experience" as an admission requirement for teacher education programs. In New Jersey, for example, students must engage in a program during their sophomore year which provides practical experience in teaching. Before admission, these students are counseled on the nature of the teaching profession and assessed on their aptitude to teach. In Oklahoma, candidates for teacher education programs must present a 2.5 GPA, adequate reading, writing, and communications skills, and "evidence of a personality that would prove suitable when working with youth, parents and other members of the educational community."

The most striking effect of these admissions requirements is the introduction of an entirely new state role in decisions that have heretofore been the province of higher education institutions alone. Given the importance of this precedent, it is perhaps surprising that university objections were as few and faint as they were. Some of the most vociferous and extended controversy over state-imposed entrance and exit requirements occurred at the University of Wisconsin-Madison,

[1]In the subsequent discussion, schools, colleges, and departments of education are for simplicity referred to as schools of education.

where the faculty senate, augmenting the efforts of the school of education, led the opposition. "We wouldn't let the state set curriculum for astronomy," they argued. "Why should we allow it for education?" (ECS). By and large, in the states that have pursued this course, the requirements are viewed as a fait accompli, even where there are concerns about the effects on teacher supply.

PROGRAMMATIC REQUIREMENTS

By 1986, approximately two-thirds of the states had a specific program of student requirements for teacher certification (ECS). Over the last several years, an increasing number of states began mandating that approved teacher education programs include specific semester (or quarter) hours in general education, professional education, and subject matter specialty. In addition, some states have begun to require particular courses for prospective teachers—from courses on drug abuse to those on urban youth (see Table 1). Finally, in some states, approved teacher education programs are required to show evidence of program components related to identified teaching competencies.

States are mandating specified hours to be earned in several teacher education program categories. For example, in 1985, Florida mandated that an approved teacher education program must require that a

Table 1

SAMPLE OF COURSES REQUIRED BY STATES

State	Courses Required
Arizona	Reading
Colorado	Child abuse
Connecticut	Mainstreaming special education students
Florida	Child abuse, student mental health
District of Columbia	Sociology of urban youth
Illinois	Teaching exceptional children
Michigan	Reading
Missouri	Reading
Montana	Health education, computer literacy
West Virginia	Multicultural education
Wisconsin	Exceptional children, human relations, reading, conservation
Wyoming	Special education, human relations, computer science, gifted and talented education

SOURCE: ECS survey and AACTE, December 1986.

prospective secondary teacher earn 45 semester hours in general education, 18 in professional education, and 30 in subject matter specialty. In Oklahoma, the state requires that a prospective teacher earn at least 50 semester hours in general education, 30 hours in professional education, and 40 hours in a subject specialization. In New Mexico, 1986 legislation specifies 54 credits of general education in a college of arts and sciences for prospective teachers (AACTE, 1986).

Without question, the states are mandating more specific teacher education coursework. More often than not, these mandates have required more academic courses in the subject area discipline for secondary education majors. In Maryland, the state now requires that a prospective teacher earn at least 80 hours in "academic" courses—including those that may be classified as general (or liberal arts) and subject matter specialty. Prospective secondary teachers must earn at least 24 hours in their subject matter specialty. In 1981, Michigan began to require that secondary certificate holders earn at least 30 credit hours in their specialty area and 20 hours in a minor. In 1984, Oklahoma increased its teacher education requirements by mandating 50 semester hours in general education, 30 hours in professional education (including practicums and internship), and 40 hours in the area of specialization. In Maine, a 1984 law required that a candidate for initial teacher certification complete a four-year liberal arts program or an approved four-year teacher education program with a major in the intended area of teaching (ECS). Several states—such as Ohio and Wisconsin—have specified a minimum number of academic courses to be taken by elementary school majors (e.g., 20 and 22 hours, respectively) (AACTE, 1986).

Although many states are specifying more precisely the content of professional education programs, the emphasis is on the liberal arts and subject matter specialty components of programs, at the expense of education courses. In Florida, a 1985 law required that prospective secondary teachers must earn 30 hours in a subject matter field that is *not* taught in a department (or school or college) of education. Some states have even imposed a legislative ceiling on professional education courses. In New Jersey, the state has set a maximum of 30 credit hours that a teacher education student may earn in the professional education coursework sequence. In Virginia, the Commission on Excellence in Education has recommended that teacher education program approval standards limit professional education course requirements to 18 undergraduate semester hours (AACTE, 1986). There are some exceptions to this trend. Professional education requirements were increased in Nevada, reflecting "growing knowledge about what kind of training is required for effective teaching" (ECS). The Minnesota

State Higher Education Commission spelled out ambitious goals for professional teacher education and in 1985 the legislature authorized grants to colleges with exemplary teacher education programs as a reward and a stimulus for improvement.

By and large, though, the requirements that prospective teachers earn more hours in their subject area specialty are shrinking the time available for professional education in the traditional undergraduate teacher education program. As a consequence, more states may begin to consider mandating that a prospective teacher first earn a full liberal arts major before receiving professional training in a fifth-year program. In some states—such as Connecticut, Washington, New York, and California—commissions and advisory boards have recommended that teacher education programs be moved from the undergraduate to the graduate level. In Washington, an advisory board has recommended that teacher education be a two- or three-year graduate program; whereas in New York, it has been recommended that the five-year teacher preparatory program include 90 hours of liberal arts study (AACTE, 1986).

Although most of the new policies reflect a trend toward deemphasizing education methods courses, state policies are emphasizing practical experience throughout the teacher education program. For example, the Virginia commission has recommended that teacher education programs improve their required field experiences and increase the time allotted for them. Several years ago, education students generally were required to have no more than six weeks of actual student teaching before completion of their program. More recently, many states have required institutions to increase the time students spend in "pre-practicum" field experiences (e.g., 100 hours in Colorado, 150 hours in Kentucky, and 300 hours in Ohio) and in student teaching (e.g., 10 weeks in North Carolina and North Dakota; 12 weeks in Oklahoma, Pennsylvania, South Carolina, Kentucky, and Mississippi; and 14 weeks in New Mexico and Wisconsin) (AACTE, 1986).

Some states have begun to require that teacher education programs show evidence that their graduates have demonstrated specific teaching competencies. States that have recently mandated such requirements include Florida, Georgia, North Carolina, California, South Carolina, and Washington. In Florida, approved teacher education programs are required to demonstrate evidence of program components related to teaching competencies identified in the Florida Performance Measurement System, an evaluation instrument used to assess beginning teachers. In California, the Commission on Teacher Certification recently adopted 32 product-oriented program approval requirements delineating the teaching outcomes expected from graduates. The commission

has mandated that teacher education programs must assess their students on the basis of these expected outcomes and "guarantee" that they have achieved the outcomes upon graduation (AACTE, 1986).

Massachusetts is one of only a few states that is bucking the tide. Rather than increasing the prescriptions for teacher education, the state deregulated course requirements when it enacted certification testing in an effort to increase colleges' flexibility in determining how best to achieve training goals. Now, instead of being required to offer specific courses, teacher education programs are evaluated according to five broad standards of prospective teacher knowledge, and for overall curriculum and practicum coverage. This approach more closely approximates the ways in which other professions are regulated, where outcome standards are established and professional schools are free, within professionally determined accreditation guidelines, to determine how they can best be met.

Paradoxically, for a number of states, improving teacher preparation seems to mean reducing the amount of time devoted to traditional teacher education. To the extent that there is a conception of teaching underlying these moves, it is a view that liberally educated students require little more than guided practical experience to learn how to teach effectively. The claims to a specialized knowledge base that undergird the development of a profession have fallen on deaf ears in these states. Other states, however, are moving toward a five-year program of teacher education, which may accommodate the demands for liberally educated teachers who are also highly trained for their work.

With these various pushes and pulls on the teacher education curriculum, there has been little average change in credit hour requirements over the last five years in the 400 institutions surveyed by the American Council on Education (1985). The survey reported few overall changes in (1) the total required for a baccalaureate degree, (2) student teaching, (3) teaching methods, and (4) subject matter specialty for secondary majors. In 1985, the average number of credit hours required for a baccalaureate degree in education was 127.4. In 1980, the average number of hours was 126.5—representing less than a one point increase over five years. The ACE survey indicated significant differences between elementary and secondary programs—with elementary programs requiring more education and more methods courses (see Table 2).

Table 2

RECENT CHANGES IN THE AVERAGE NUMBER OF CREDIT HOURS IN TEACHER EDUCATION PROGRAMS

	Education Courses		Methods Courses	
	1980	1985	1980	1985
Elementary	41.6	43.3	19.1	19.9
Secondary	28.2	29.7	8.4	9.1

SOURCE: Holmstrom (1985).

SPECIFIC CREDENTIALING

In response to the public concern that teachers are not adequately prepared in their field of study, some states have recently begun to require specific credentialing in a teacher's subject matter and for the grade level in which he or she teaches. In effect, some states have enacted and implemented what might be called a "superstandard" credential. This means, for example, that if a teacher is to be fully certified to teach high school physics, then he or she must have earned a minimum number of college credit hours in physics beyond the requirements of a "standard" teaching credential. This trend is a significant departure from the earlier practice whereby many states certified teachers along broad categories. Broad certification policies generally mean that a teacher certified in kindergarten through eighth grade is "legally" allowed to teach any grade or subject in grades K-8. Or a teacher certified in "secondary science" is not "out-of-field" even though his primary area of preparation is in middle school biology and he teaches nothing but high school chemistry and physics.

Many states offer specialized credentials. For example, New Jersey has established 31 specialized certification areas; Nebraska has established 20; Montana has established 44; and Massachusetts has established 52. However, in 1986, at least 26 states issued "semi-broad" teacher certificates—allowing a teacher to teach any type of subject matter within such categories as social studies, language arts, or science. Roth (1986, p. 726) has noted that:

> With a "science" certificate, for example, an individual may teach any science subject, though it is highly unlikely that anyone would be adequately prepared in all areas of the earth sciences, the biological sciences, and the physical sciences. Individuals with this kind of

certificate may be *certified*, but they are not *qualified* in all areas. Moreover, based on state projections, the number of states that issue semi-broad credentials is likely to increase,

Although some states—for example, Michigan and Washington—have recently implemented specific credentialing policies, it is important to note that at the same time, other states—for example, Tennessee and South Carolina—are moving in the other direction—allowing for broader certification categories. Adding to the confusion is that different states use different labels for their superstandard credential; or more commonly, different states use the same label to define different credentialing standards. Some states classify their superstandard credential as an "endorsement," whereas in other states, an endorsement is essentially "substandard"—meaning the teacher has not met normal minimum requirements for teaching in a particular field. Emergency, temporary, or provisional generally imply a "substandard" credential. For our purposes here, we will use the label "specific credentialing" to indicate a standard beyond a "regular" certification.

In Michigan, there is a pending regulation that will mandate that all secondary teachers (in grades 7–12) have specific credentialing (or "endorsement" as it is called in Michigan) in the fields that they teach. (Presently, seventh and eighth grade teachers do not have to have specified subject area credentials.) A specific credential is earned by either holding a major (30 hours) or minor (20 hours) in a particular subject area. In Vermont, 18 credit hours are now required to obtain a specific credential. (The previous requirement was 15 credit hours.) In South Dakota, 20 subject-specific endorsements were adopted by the State Board in 1985 to guarantee that teaching assignments match endorsement areas.

The State of Washington may have enacted the most rigorous credentialing policy to date. Those teachers who apply for a continuing certificate (after July 1, 1986) are restricted to teaching in the areas where they have a specific credential. This new policy requires that teachers who receive a continuing certificate earn 24 quarter hours (45 hours for English, social studies, and science) of college coursework beyond the baccalaureate degree. Without question, these types of policy changes stem from the concern that too many teachers have been teaching out-of-field.

In a related move, the North Carolina State Board of Education established an "in field" policy, which allows teachers to teach only in those areas for which they are certified. This change was triggered by a State Board finding that 20 percent of elementary and secondary classes were being taught by teachers who were not certified in the area. Exceptions may be made, however, where shortages require out-

of-field assignment, thus the impact of the new policy is unclear. In Oklahoma, all minor teaching endorsements were eliminated in 1984. This policy had allowed certified teachers to teach in the area of their minor for one hour per day. The State Board of Education decided that the policy was not viable; any teacher allowed to teach a subject one hour per day should be qualified to teach that subject the entire day (ECS).

For every one of these moves to tighten certification requirements, however, others have been taken to loosen or waive such requirements to counteract teacher shortages. Although virtually all states had provisions for temporary or emergency certification before 1983, some have added such provisions to allow individuals who have not taken education courses to teach or created new classes of emergency certificates since then. Alaska created a one-year temporary certificate to alleviate shortages in 1983. In 1985, Arizona added to its existing emergency credential an Associate Teachers Program "to attract retired people and others into teaching." At the request of local districts, Louisiana created two new classes of certification to address shortages in 1986: one for uncertified teacher education graduates and the other for individuals with bachelor's degrees but no teacher education training. North Carolina created a "lateral entry" policy in 1985 to certify individuals from other fields who had not taken teacher education coursework.

ALTERNATIVE ROUTES TO CERTIFICATION

Ironically, even as states have increased their influence over teacher preparation programs, they have created or expanded loopholes allowing more candidates to avoid these same requirements. Decreases in the number and perceived quality of teacher education graduates throughout the 1970s and early 1980s stimulated many states to create new provisions for the certification and employment of teachers other than through the traditional route of completing the requirements of a state-approved teacher certification program.

In 1983, 46 states allowed substandard, limited, or emergency certification and 27 of these states allowed these certificates to be issued to those teachers who did not hold a bachelor's degree (Feistritzer, 1984).

Personnel shortages in the schools vary by grade level, subject area, and geographic region (NCES, 1985b). Historically, schools have addressed these types of personnel problems by hiring untrained teachers or by assigning otherwise qualified teachers to subjects or grade levels for which they have not been certified (Roth, 1986). By hiring and

placing teachers with emergency certification or placing certified teachers in an out-of-field assignment, the extent of the nation's teacher supply problem may be confounded.

During the early 1980s, this problem began to rise to the forefront of teacher policy issues. A 1982–83 nationwide survey revealed that in six states (Texas, Ohio, California, Florida, Colorado, and New Jersey) more than 10 percent of all new hires had been issued emergency, substandard, or limited credentials (NASDTEC, 1984). In addition, a 1984 AACTE survey revealed that California issued approximately 5000 emergency credentials and Pennsylvania and New Jersey issued 1711 and 1077, respectively (AACTE, 1984). Most recently, a 1986 National Education Association survey revealed that in their efforts to respond to a teacher shortage, 38 percent of the school districts surveyed indicated they would assign teachers outside their field of preparation. Thirty-eight percent would recruit individuals who had no formal teacher training, and 15 percent would try to hire teachers from foreign countries ("NEA Calls on Governors. . . ," 1986). On the basis of a survey of school districts, the National Center for Education Statistics reported that in 1985 approximately 12.4 percent of all newly hired teachers were not fully certified in their assigned fields. The NCES also reported that 3.4 percent of all teachers (over 88,000) were without appropriate credentials for their fields of primary assignment (NCES, 1985b).

Because emergency teacher certificates generally waive teacher education or other requirements altogether, they may be viewed as lowering the quality of present classroom teachers. As a sort of compromise between standard and emergency certification, some states have designed alternative certification programs to attract and prepare teachers from outside the mainstream of traditional teacher education programs. These programs generally enroll "noncertified individuals with at least a bachelor's degree, offering shortcuts, special assistance, or unique curricula leading to eligibility for a standard teaching credential" (Adelman, 1986, p. 3). Alternative certification programs have been supported by critics of the educational establishment who believe that traditional teacher education programs offer "Mickey Mouse" courses of little help to practicing teachers. Some alternative certification programs are built upon the assumption that "education courses are little more than a waste of time" (Inman, 1984, p. 39).

Although alternative certification programs may impose higher standards than present emergency certification procedures, these programs deemphasize teacher education and legitimize differential standards for entry to teaching. In New Jersey, for example, the alternative certification program requires only 200 contact hours in pedagogical training

sessions. This is equivalent to approximately four three-hour college courses. At the time the alternative route was created in New Jersey, the state required that teacher education students take at least 10 three-hour college courses in pedagogy.

Most programs require a reduced level of teacher education training to be acquired, paradoxically, in the same traditional teacher training institutions that have been criticized for offering irrelevant (though often state-mandated) courses. Some use state-developed curricula. Other programs are conducted entirely by local districts, such as the Teacher Trainee program in Los Angeles and a similar program in Houston. A few require no specific coursework but a supervised internship for on-the-job training. Some certificates that have been called "alternative" routes appear to have no particular training requirements associated with them. In these cases, the fine line between emergency and alternative certification has probably been crossed. Although some states, like New Jersey, eliminated emergency certification when the alternative route was introduced, most have merely added such routes to their existing array of temporary, provisional, or emergency certificates.

The number of states that are now implementing alternative routes to certification has jumped from eight in 1984 to 23 in 1986 (Feistritzer, 1986). Although the states continue to employ teachers with substandard credentials and many educators criticize alternative certification, this approach obviously has appeal for state policymakers and many individuals who would like to try teaching. Adelman (1986), in her analysis of 12 alternative certification programs, describes the characteristics of the programs, and their participants.

- In comparison with traditional teacher education, alternative certification programs feature more field experience and more intense supervision in the field for at least a brief period of time.
- Formal coursework is a compressed version of traditional teacher education, and scheduling usually requires that alternative certification candidates attend classes after teaching a full day.
- Alternative certification programs appear to be attracting well-educated individuals with a sincere interest in teaching. Their classroom competence cannot yet be assessed.

It is too soon to tell whether, in the face of pressures for improved teacher education, alternative certification programs will long survive. Many such programs existed in the 1960s when teacher shortages were

acute but disappeared when the shortages eased. It may be that if current teacher shortages are reduced by increased inducements to teaching, the practice will again fade. In the meantime, however, alternative certification stands as a vivid example of policymakers' acute ambivalence about what kinds of knowledge are required for effective teaching. In the short term, at least, the practice is here to stay.

TEACHER CERTIFICATION TESTS

By 1986, all but four states had mandated teacher competency tests in either basic skills, subject matter knowledge, or professional knowledge. During the 1980s, 20 state legislative and 32 state board of education mandates have revealed a strong conviction that many teachers are inadequately prepared in the skills and knowledge necessary for effective teaching (see Table 3).

In the mid-1970s Georgia and Louisiana mandated competency examinations as a criterion for teacher certification. By 1977, only three states had mandated competency tests. Since then, state policies mandating assessments of basic skills, professional knowledge, and subject area knowledge have proliferated (Sandefur, 1986). Twelve mandates occurred by 1980, 28 between 1980 and 1984, and eight between 1984 and 1986 (see Figs. 2 and 3). These mandates required assessments either before a student's admission to a teacher education program (25 states) or before receiving state certification (41 states) or both.

In some states, particularly in the Sunbelt region, growing shortages of teachers have intersected with competency testing to produce the various certification loopholes reviewed earlier to sustain an adequate supply of teachers. One state—Louisiana—was forced to lower the test cut-off score. In 1985, the state lowered its NTE cut-off scores in order to remedy teacher shortages in math and science. The lowering of the cut-off scores was opposed by the state's business lobby, but without question, the policy change has positively affected the state's teacher supply. In 1978, only 60 percent of Louisiana's teachers passed the NTE, whereas in 1986, 87 percent passed. Despite the effects on teacher supply, no state has repealed a test requirement, though some have delayed implementation and many have increased the use of temporary or emergency certificates.

Of the three most prevalent types of competency tests—basic skills, subject matter knowledge, and professional knowledge—states have most readily enacted and implemented basic skills tests (see Fig. 4). In recent years, a few states have added on-the-job performance

Table 3

STATES MANDATING COMPETENCY ASSESSMENT OF TEACHERS, 1986

State	Mandate		Date	Level		Skills Tested				Type of Tests	
	Legislative	State Board of Education	Mandated/ Implemented	Admissions	Certification	Basic	Professional	Academic	On-the-Job	National Standard	Customized
Alabama		X	80/81	X	X	X	X	X		ACT/SAT	X
Arizona	X	X	80/81	X	X	X	X			PPST	X
Arkansas	X	X	79/83		X	X	X	X		NTE	X
California	X		81/83	X	X	X		X		CBEST/NTE	X
Colorado	X		81/83	X	X	X				CAT	
Connecticut	X	X	82–85/81–87	X	X	X	X	X			X
Delaware		X	82/83		X	X				PPST	
Florida	X		78/80	X	X	X	X	X	X		X
Georgia		X	75/78		X		X	X	X		X
Hawaii		X	84/86		X	X	X	X		NTE	
Illinois	X		85/86–88	X	X	X					X
Indiana	X		84/85	X	X	X	X	X		NTE	X
Kansas	X		84/86		X	X	X			PPST/NTE	
Kentucky	X	X	82/83–85	X	X	X	X	X	X	NTE	
Louisiana	X		77/78		X	X	X	X		NTE	
Maine	X		84/88		X	X	X	X		NTE	
Maryland		X	86/87		X	X	X	X		NTE	
Massachusetts		X	79/82		X	X	X	X			X
Minnesota	X		85/88			X		X		NTE	
Mississippi	X	X	82/86	X	X	X	X	X	X	NTE	X
Missouri		X	81/85	X		X				ACT/SAT	
Montana		X	85/86		X	X	X	X		NTE	
Nebraska	X		84/86	X		X				PPST	
Nevada		X	84/86	X	X	X		X	X	?	?

Table 3 (continued)

State	Mandate		Date	Level		Skills Tested				Type of Tests	
	Legislative	State Board of Education	Mandated/ Implemented	Admissions	Certification	Basic	Professional	Academic	On-the-Job	National Standard	Customized
New Hampshire		X	84/85		X	X				PPST	
New Jersey		X	84/85		X	X		X		NTE	
New Mexico	X	X	81/83	X	X	X	X		X	NTE	
New York		X	84/84		X	X	X		X	NTE	
North Carolina		X	79/82	X	X	X	X	X	X	NTE	
North Dakota		X	86/	X	X	X	X	X		?	?
Ohio		X	85/87	X	X	X	X	X			
Oklahoma	X		80/82		X	X	X	X	X		X
Oregon		X	82/85	X	X	X				CAT	
Pennsylvania		X	84/87		X	X	X	X	X	?	?
Rhode Island		X	82/86		X	X	X			NTE	
South Carolina	X		79/83	X	X	X	X	X	X	NTE	
South Dakota		X	85/86		X	X	X	X	X	NTE	
Tennessee		X	79/79	X	X	X	X	X		PPST/NTE	
Texas	X		81/84-86	X	X	X	X	X	X	PPST	X
Utah		X	79/80	X		X				?	?
Vermont		X	80/82		X		X	X	X		X
Virginia	X		80/85		X	X	X	X	X	NTE	X
Washington		X	78/83-87	X	X	X	X				X
West Virginia		X	82/85		X	X	X	X		?	?
Wisconsin		X	86/87	X	X	X		X		?	?
Wyoming		X	82/82	X		X				CAT	
Totals—46	20	32		25	41	44	32	31	14	31	16

SOURCE: Sandefur (1986).

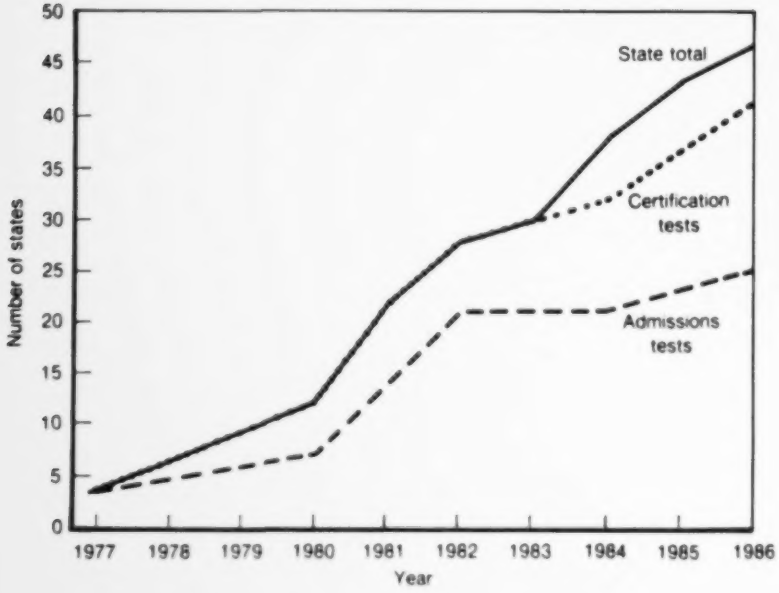


Fig. 2—Number of states mandating teacher competency tests before admission to teacher education programs or certification, 1977-1986

assessments of first-year teachers as a requirement for continuing certification. These are discussed in the next section.

The National Teacher Examinations (NTE) is by far the most common test mandated for testing before certification. According to a 1986 survey, NTE minimum cut-off scores ranged from 640 to 653 for communication skills, 631 to 649 for general knowledge, and 630 to 648 for professional knowledge (AACTE, 1986). Some states have mandated customized examinations to assess the basic skills and subject matter knowledge of prospective teachers. These tests are usually developed within the state, although some are developed by such organizations as the Educational Testing Service or National Evaluation Systems. However, many states have found the costs of customized tests to be prohibitive.

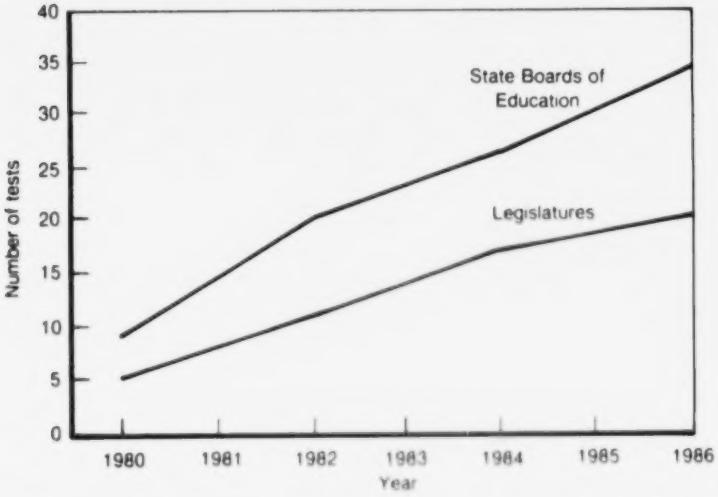


Fig. 3—Number of state teacher competency tests mandated by State Legislatures or State Boards of Education, 1980–1986

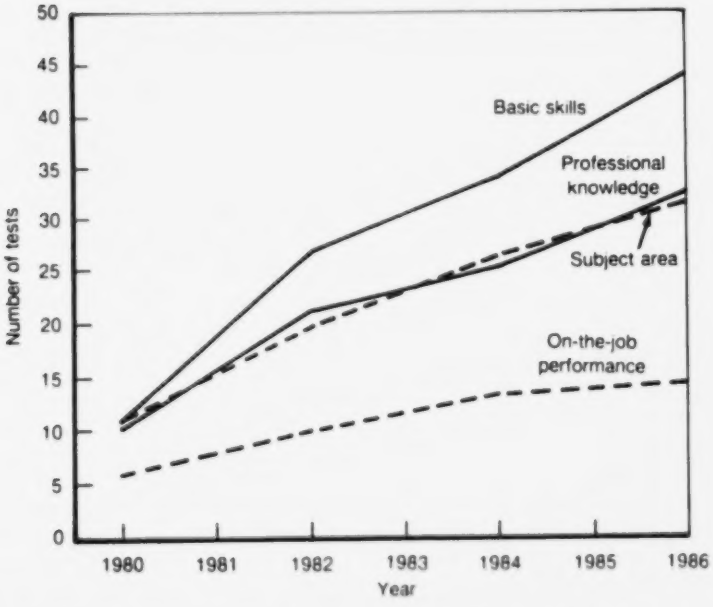


Fig. 4—Number of state teacher competency tests by type, 1980–1986

Some states have mandated teacher competency testing but have delayed its implementation. In some cases, this has been due to lack of funding for test development or validation. Most delays in implementation have been related to concerns about the reliability and validity of the tests available. Some of these concerns are the result of racially disparate test outcomes and fears of attendant lawsuits. Others stem from growing skepticism about the appropriateness of test content, especially for tests of professional knowledge.

Historically, minorities—when compared to whites—have not fared well taking the National Teacher Examinations, and some states have had the use of the test for teacher certification purposes challenged in the courts on the basis of test bias and lack of job-relatedness. Thus, state education officials have spent considerable effort trying to ensure that their teacher competency tests stand up to legal scrutiny. This has generally meant conducting validation studies in which surveys of teachers or teacher educators are used to set cut-off scores. The surveys ask about the importance or relevance of test content categories, but the results are not used to change the content of the examinations, only to set passing levels.

Job-relatedness has become an increasingly important criterion in these studies, leading to the view in states like West Virginia, Georgia, and Oklahoma that the tests should measure only the content that teachers are expected to teach, rather than a more comprehensive body of knowledge that they might otherwise be expected to know. Though these concerns for job-relatedness and validity have begun to influence the construction of tests, they have not greatly affected the problem of disparate pass rates.

There is no question that teacher competency testing, in conjunction with a steep decade-long decline in the number of minority college students choosing education majors, has had a significant impact on the number of minority teachers entering teaching. For example, in Louisiana—a state that began a teacher testing program in 1978—competency tests have had a profound influence on the pool of minority teachers. In its initial year of testing, 31 percent of Louisiana's test-takers were black. Four years later—in 1982—the percentage had dropped to 13. Correspondingly, the number of black teachers with four or fewer years of experience dropped considerably in the state. Joan Baratz (1986, p. 23) has noted the dire consequences of testing for the minority teachers in Louisiana:

> During the five year testing period only 15 percent of all Black candidates have passed the test, an average of 40 Black candidates a year, a figure well below the 580 Black teachers needed if the staff racial balance is to be maintained. The decline in candidates taking the

> test has also been accompanied by a dramatic decline in enrollment in pre-professional teaching programs in the two state institutions that had heretofore been the major producers of Black teachers (32 percent drop in the junior cohort and a 49 percent drop in the senior cohort over the five year period).

Other researchers have similarly assessed the consequences of teacher testing on minorities. A study conducted for the American Association for Colleges of Teacher Education found that "regardless of the state and regardless of the type of examination—entrance or exit, standardized or customized—disproportionate numbers of minority teachers are being screened out of the teaching profession" (Smith, 1984).

The low pass rates for black candidates—especially in the southern states where teacher competency tests were initially implemented—have caused considerable concern in other states. For example, Connecticut passed its teacher testing requirement in 1985 and mandated its implementation for 1987. However, the state delayed implementation of the subject matter and professional knowledge components until 1990, partly because of concern about test bias and the failure rate of minority students. In addition, the state delayed implementation when it later determined that the professional knowledge test should be a performance assessment during a teacher's first year of teaching, not a written test while he or she is still in undergraduate school. The state department of education is currently developing a new kind of performance assessment to test professional knowledge and its application.

Among those states that have been the last to mandate tests for certification are several that, like Connecticut, are moving beyond the paper-and-pencil, multiple-choice examinations used for teacher testing in most states. Missouri's precertification assessment, enacted in 1985, is currently being developed. The assessment will include a test, but it will also include other types of assessments of teacher skills and abilities, so that certification does not rely on the test alone. In Minnesota, the Board of Teaching—an autonomous professional standards board—recently recommended to the legislature, and the legislature endorsed, a performance-oriented assessment of teaching skills similar to the assessments used in other professions following a year-long internship program. These newer assessments may begin to counteract the perception of many teachers and teacher educators—and the findings of most studies—that professional knowledge tests for teachers fail to tap the knowledge and skills important to teaching.

Some of the skepticism on the part of educators about the validity of professional test content results because in contrast to those of other professions, the current tests have been adopted and developed by

governmental agencies with the assistance of testing firms, rather than by professional standards boards representing the members of the profession themselves. Such bodies (such as the National Board of Medical Examiners, the National Council of Architectural Registration Boards, and the national and state bar associations) do not, for the most part, exist in teaching. Three states—California, Minnesota, and Oregon—have professional standards boards vested with some rule-making authority, but such committees as exist elsewhere have advisory roles only.

About the time the Carnegie Forum proposed a National Teaching Standards Board in 1986—and then established a planning group to implement the recommendation—a number of states began to consider and adopt similar propositions. In 1987, Nevada established an independent professional standards board. The Connecticut State Board of Education is studying the feasibility of establishing such an autonomous professional standards board. Missouri established an Advisory Council for the Certification of Educators in 1985, which will "initiate new state certification regulations for adoption by the state board." The Montana legislature has recently considered, but not yet adopted, a proposal to establish a standards board. A task force in North Carolina is studying the idea on behalf of the state board of education (AACTE, 1986). These glimmers of second wave reform may eventually produce teacher competency tests that reflect the profession's conception of the knowledge base for teaching to replace the first-generation emphasis on basic skills testing.

J. T. Sandefur, who has surveyed state assessment trends in the United States throughout the 1980s, has drawn several conclusions concerning the teacher competency test movement:

1. The teacher testing movement grew with the educational reform movement and reflects the public's lack of confidence in teachers and teaching.
2. The movement had its origins in the South, spreading from Georgia, Louisiana, and Florida to the remaining states of the Southern Regional Education Board and from there to the West and Northeast. The northern states have been the last to adopt teacher testing.
3. Early state entries into teacher testing (prior to 1980) were usually the results of state legislative mandates, whereas later entries were typically mandated by state boards of education.
4. A trend toward the use of nationally standardized tests, such as the NTE, is apparent because of the development costs of customized tests and the desire for comparability of test scores provided by standardized tests (Sandefur, 1986, p. 12).

BEGINNING TEACHER PROGRAMS

In part because of a belief that existing paper-and-pencil tests do not adequately capture the ability to apply relevant teaching knowledge, some states have added on-the-job performance assessments to their other testing requirements. In addition, policymakers and educators are increasingly concerned about the detrimental effects of the traditional "sink-or-swim" approach to teacher induction. Failure to provide novice teachers with adequate supervision when they first take on clinical responsibilities results in high attrition rates for beginning teachers, suboptimal teacher learning, and impaired tenure decisions (see, for example, Wise et al., 1984; Darling-Hammond, 1986b; McLaughlin, 1986). In the light of current concerns about teacher supply and quality, efforts to change these outcomes are generally welcomed.

Sandefur (1986) has noted the recent teacher policy trend of requiring an internship or an assistance and assessment program for beginning teachers. Beginning teacher programs (BTPs) can take several forms. One, they can provide opportunities for experienced teachers to provide curricular and instructional support for new teachers in their first years on the job. Two, they can provide the opportunity for evaluators (usually administrators or a team of administrators and senior teachers) to assess the teaching skills of beginning teachers before they receive full or regular certification. Third, beginning teacher programs can provide opportunities for both—i.e., the assistance to and assessment of novices.

The American Association for Colleges of Teacher Education (AACTE) has noted that 39 states have reported some state-level activity in either studying, planning, enacting, or implementing a beginning teacher program. According to the 1986 AACTE report, 10 states were in the process of implementing a BTP, nine were piloting, nine were planning, nine were studying, and one—Nebraska—had enacted a statewide program but had yet to fund it. Only 12 states had not reported any state-level activity. The following table delineates the status of beginning teacher programs across the United States.

By far, the most common program enacted to date is the assistance and assessment model. The AACTE report indicates that of the 25 states that have determined the structure of their beginning teacher programs, 19 states have chosen this route to ensure that their beginning teachers have the requisite support and skills to teach adequately.

Table 4

THE STATUS OF BEGINNING TEACHER PROGRAMS, BY STATE

State	No State-Level Activity	Study	Plan	Pilot	Implemented	Program Type
Alabama		+				Not determined
Alaska	+					—
Arizona	+					—
Arkansas	+				+	—
California						Support only
Colorado			+			Assist & assess[a]
Connecticut			+			Assist & assess[a]
Delaware				+		Not determined
Florida					+	Assist & assess[a]
Georgia					+	Assist & assess[a]
Hawaii		+				Not determined
Idaho				+		Not determined
Illinois				+		Support only
Indiana		+				Not determined
Iowa	+					—
Kansas			+			Assist & assess
Kentucky					+	Assist & assess[a]
Louisiana				+		Assist & assess[a]
Maine				+		Assist & assess[a]
Maryland				+		Assist & assess[a]
Massachusetts	+					—
Michigan	+					—
Minnesota			+			Not determined
Mississippi			+			Assist & assess[a]
Missouri			+			Not determined
Montana	+					—
Nebraska					Not funded	Assist & assess[a]
Nevada		+				Not determined
New Hampshire	+					—
New Jersey	+					—
New Mexico			+			Assist & assess[a]
New York				+		Support only
North Carolina					+	Assist & assess[a]
North Dakota	+					—
Ohio			+			Support only
Oklahoma					+	Assist & assess[a]
Oregon		+				Not determined
Pennsylvania				+		Support only
Rhode Island		+				Not determined
South Carolina					+	Assist & assess[a]
South Dakota					+	Assist & assess[a]
Tennessee					+	Assist & assess[a]
Texas	+					—
Utah			+			Assist & assess[a]
Vermont	+					—

Table 4 (continued)

State	No State-Level Activity	Study	Plan	Pilot	Implemented	Program Type
Virginia					+	Assist & assess[a]
Washington			+			Support only
West Virginia		+				Not determined
Wisconsin		+				Not determined
Wyoming		+				Not determined
Totals	12	9	9	9	10 (1 not funded)	

SOURCE: AACTE (1986).

[a]Indicates program whereby beginning teacher must pass a performance assessment to receive full certification.

Of these, 18 have chosen to require that their beginning teachers pass a formal performance assessment before receiving full certification. Six other states have chosen to emphasize only the support component of their beginning teacher programs.

In states that have required on-the-job assessment as a certification requirement, beginning teachers generally receive provisional certification when they complete their teacher preparation programs and meet other requirements (e.g., standardized paper-and-pencil tests). Their teaching performance is formally assessed during their first year in the classroom as full-time teachers. Generally, the beginning teacher is observed and evaluated two to three times in a year by an evaluator or team of evaluators (usually the principal and perhaps a teacher or other supervisor) using a state-developed instrument that covers classroom management, interpersonal skills, professional standards, etc. Evaluators generally rate the beginning teacher on the basis of whether specified teaching behaviors are present or absent.

The beginning teacher evaluation instruments developed in Florida, Georgia, and other states assess limited and minimum teaching competencies.[2] Although the models are intentionally generic so that they may be used with *all* beginning classroom teachers, the research upon which they are based is generally limited to behaviors associated with teaching basic skills at the elementary grade level. Without question, many important teaching skills—especially those that relate to context-related decisions and strategies—are ignored (see e.g., Wise and Darling-Hammond, 1987; MacMillan and Pendlebury, 1985).

[2]The Florida Performance Measurement System (FPMS) has been a forerunner of state beginning teacher assessment programs. Some states—like South Carolina and North Carolina—use many of the same principles found in FPMS. Other states—such as Kentucky—have imported FPMS to use directly.

The skills and competencies reflected in the instrumentation suggest that teaching competence can be isolated from the context of age level, subject matter, or the purpose of the lesson. Although the training given to evaluators may take account of research-based distinctions between elementary and secondary teaching strategies or between strategies useful for pursuing different instructional goals, the basic assumption of the models is that there are specific "behaviors" all teachers are expected to exhibit whether or not they are teaching a kindergarten class of disadvantaged children, a social studies class of bilingual seventh graders, or advanced placement physics students in an affluent suburban high school. Another assumption of some of the models is that the measurement of these behaviors can be accomplished by tallying the number of times a particular teaching action occurs.

Efforts to link specific teaching behaviors to student outcomes have often sought context-free generalizations about what constitutes effective teaching. Although this research strongly suggests that what teachers do in the classroom does affect students, the types of behaviors that produce effective learning vary across grade levels, subject areas, types of students, and instructional goals (see e.g., McDonald and Elias, 1976; Doyle, 1978; Darling-Hammond et al., 1983; Stodolsky, 1984). The most extensive process-product study of teacher effectiveness, the Beginning Teacher Evaluation Study, found after nearly 10 years of research that "linking precise and specific teacher behavior to precise and specific learning of pupils (the original goal of the inquiry) is not possible at this time. . . . These findings suggest that the legal requirements for a license probably cannot be well stated in precise behavioral terms" (Bush, 1979, p. 15). The "generic" inspection approach to performance assessment assumes a constancy of teaching acts within a limited teaching repertoire that may not be representative of the range of relevant actions and decisions that are central to "good" teaching.

It may be argued that using generic teaching competencies as the standard to assess beginning teachers may be appropriate—given that BTPs are charged with determining whether or not beginning teachers are *minimally* competent, or enough so, to continue teaching and receive a "regular" certification. But, more often than not, recent state efforts to standardize teacher evaluations across school districts have led to the development of similar procedures for experienced, veteran teachers. In some states—such as South Carolina—locally developed school district teacher evaluation systems are nothing more than modified versions of the state's beginning teacher assessment program. Because of the costs involved in validating instruments and ensuring

their reliability, states may be more likely to alter their beginning teacher assessment procedures in developing statewide teacher evaluation systems. Although there has not been any systematic analysis of recent state-level teacher evaluation policy and procedures, there is reason to believe that many states will only modify their existing systems—developed for novices.

More surprising is the willingness of states who use this approach as a basis for certification to allow local employers to make licensure decisions on behalf of the state. In all other professions, licensure decisions are explicitly distinguished from employment decisions for a number of reasons. First, licensure is seen as a protection for the public that cannot be delegated to either consumers or providers of services. Second, the abilities being certified are broader than those skills that might be tapped in any particular job assignment. Finally, the need for reliability and fairness in licensure decisionmaking requires that candidates be assessed on a set of common tasks in a controlled setting.

In beginning teacher programs that use on-the-job performance assessment as a basis for licensure, the respective roles of the state and local employers are entangled in unusual ways. Some districts in states like Virginia, Florida, and North Carolina have objected to the practice because of concerns that evaluation for licensure may become confused with evaluation for employment. If a school district enforces different standards for continued employment than for state licensure, it may be legally vulnerable to claims of unfair evaluation. If it enforces local standards for employment higher than the state's minimum standards, the district may deny a license to a candidate who could have been employed elsewhere. Others have raised concerns about the lack of resources for implementing the evaluation and support requirements in many states, which require the time of senior personnel not paid for by the state. Nonetheless, the practice is spreading quite rapidly, and it will be some time before the benefits, difficulties, and long-range consequences of this delegation of authority are well understood.

RECERTIFICATION

Until recently, most states had few, if any, requirements for teachers to satisfy once they were initially certified. A common practice would be for a "successful" teacher to be granted a life certificate after five or 10 years. Or, in some states, recertification would be granted on the basis of continuous years of teaching service. Presently, in Illinois, teachers receive a standard certificate upon completion of an approved teacher education program—which is renewable every four years through registration and payment of fees (Goertz, 1986, p. 6).

However, more states are disallowing the "life" certificate—requiring teachers to continuously renew their credentials with additional formal college coursework or inservice training.

At present, 16 states issue lifetime licenses to teachers who hold advanced certificates. In a few states—like Hawaii—a teacher may receive a life certificate after two years of successful teaching. Two states—Massachusetts and New Jersey—grant a permanent license to first-year teachers. Recently, though, state policies have mandated more stringent requirements for a life or permanent certificate. In Connecticut, an initial certificate is valid for 10 years and a teacher may obtain a lifetime certificate after 30 semester hours of coursework or a master's degree and three years of successful teaching (Goertz, 1986).

Thirty-two states require that teachers renew their certificates on a continuing basis. These states generally require that a teacher earn six semester hours (or an inservice equivalent) every five or six years. Some states give teachers the option of earning credits or teaching for a successive number of years. For example, in Oklahoma, a standard certificate, valid for five years, is issued after completion of an internship. The certificate can be renewed with college credits or three years of experience.

Over the last few years, the trend has been to enact more stringent recertification standards. In California, teachers are required to take 150 hours of staff development every five years. Other states virtually have mandated that teachers become recertified by earning graduate credits and a master's degree. In the past, many of these states have not specified the quality or nature of the courses required. More states are now requiring that teachers successfully complete courses in content areas applicable to their teaching field.

Other states have enacted and implemented more controversial recertification requirements to ensure that present teachers are competent. In Arkansas, Georgia, and Texas, experienced teachers have to pass competency examinations to be recertified. In most cases, these tests have been assessments of the teacher's functional academic skills (including, but not limited to reading, writing, and mathematics). Although some teachers have had difficulty with these tests, most pass after multiple administrations.

Georgia's recertification test (for those teachers who do not hold life certificates) assesses a teacher's knowledge of his or her subject matter knowledge. Teachers are tested along broad subject matter areas. For instance, all science teachers are required to take the same test, which includes biology, physics, chemistry, etc., regardless of their area of preparation or specialization. This has caused some consternation

among teachers, since many are tested in subject areas that they have not taught. In addition, Georgia requires a performance assessment of all teachers before their recertification.

On the other hand, attempts to make teacher recertification a more rigorous process have been diluted in some states. For example, in Delaware, the state decreased the term of the entry-level certificate from 10 to five years. Now all certificates are issued for only five years. Although the state initially proposed that teachers pass six hours of college credits every five years, the state teachers' association modified the legislation such that teachers can be recertified by teaching full-time for three years for each renewal period.

SUMMARY

By and large, recent changes in teacher education, certification, and recertification pose many new screens for entry and continuation in the teaching profession. These changes have occurred at a breathtaking pace over the last six or eight years, and the cumulative effects will be difficult to assess for several years. Clearly, the imposition of new requirements contributes to a tightening of the supply pool for teaching in an attempt to raise quality, though countervailing moves to create loopholes may undercut the effort to raise standards. The test of the experiment in professionalization is whether other conditions of teaching work will prove sufficiently attractive to sustain an adequate supply of individuals able and willing to meet these requirements. In the next section, we turn to a major category of such policies: teacher compensation and incentives.

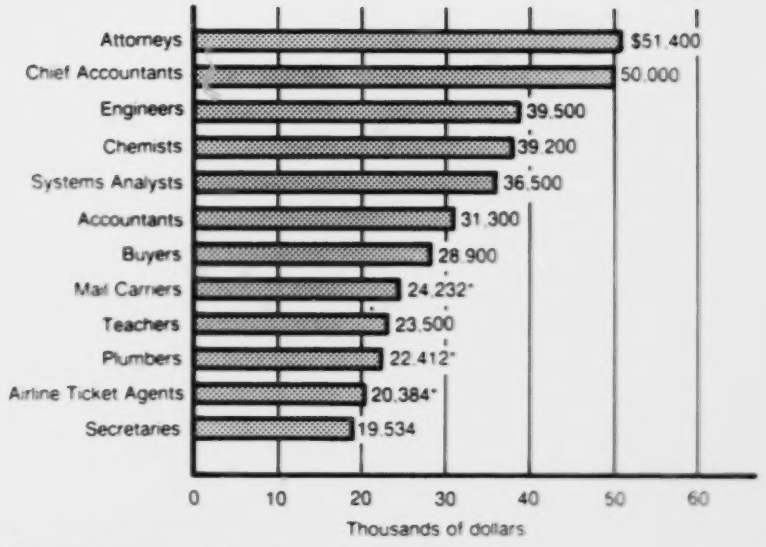
III. RECENT TRENDS IN TEACHER COMPENSATION

During the 1980s, teacher compensation policies also changed dramatically, reflecting policymakers' concerns over the capacity of public schools to attract and retain talented teachers. The "second wave" reform reports, especially, drew attention to the disparities between average earnings of teachers and those of college graduates entering into other professions (see Fig. 5). After steep declines throughout the 1970s, teacher salaries have increased substantially in the past several years, in part as a result of local pay increases and in part as a result of state legislation.

In the past, teacher pay has been largely a local issue, with the exception of a few states with statewide salary schedules often so ancient that the mandated minimums were long since outstripped by local salary schedules. Recently, though, state legislatures and state boards have become involved in setting teacher compensation policies—including across-the-board salary increases, beginning teachers' salaries, mandated minimum salaries, statewide salary schedules, and performance-based pay programs (such as incentive rewards, merit pay, and career ladders).

Among the states that have established statewide salary schedules since 1982 are Louisiana, Georgia, Tennessee, and Washington. These states, along with California, Connecticut, Maine, Massachusetts, Missouri, New Jersey, New Mexico, and North Dakota, established minimum teacher salaries for the first time during the past five years. This marks a substantial increase in state involvement in salary decisions formerly left to the discretion of local school boards.

At least 13 states, most of them in the south or southwest, authorized across-the-board salary increases for all teachers. These included Georgia, Hawaii, Kentucky, Louisiana, New Mexico, New York, North Carolina, Oklahoma, Tennessee, Vermont, Virginia, and West Virginia. More, however, have concentrated on enacting increases for novices—making beginning teacher salaries more comparable to beginning salaries in other occupations. In at least 30 states, minimum starting salaries have been established—ensuring that all teachers in all school districts will earn at least a certain amount. In 19 states, statewide salary schedules have been established—ensuring that all teachers in all school districts will earn a specific sum as they earn more degrees and gain more teaching experience. Finally, many states have enacted,



*Based on average annual median weekly earnings

SOURCE: U.S. Department of Labor (1985), and unpublished tabulations from the Current Population Survey (in Carnegie Forum, 1986)

Fig. 5—Average annual salaries for selected occupations, 1985

implemented, or are in the process of developing programs to reward teachers on the basis of their performance. (See Table 5.)

SALARY INCREASES

In 1985–86, the average public elementary and secondary school teacher's salary was approximately $25,240—an increase of 7.2 percent over the previous year and an increase of 31 percent since 1981–82, when the average salary was $19,270 (Nelson et al., 1986). Although the average salary gains by teachers during the 1980s outstripped inflation and were considerably higher than average salary gains of all American workers (Feistritzer, 1986), these increases only restored teachers to the real value of average teacher salaries in 1971–72. (See Fig. 6.)

Table 5

TEACHER COMPENSATION POLICIES IN THE UNITED STATES, BY STATE, 1986

State	1985–86 Statewide Minimum Salary (amount)[a]	1985–86 Average Starting Salary (amount)[b]	State Salary Schedule[c]	1985–86 Average Teacher Salary[b]	State Performance Pay Program[d]
Alabama	No	—	No	22,934	State plan
Alaska	No	—	No	41,647	Local option
Arizona	No	—	No	23,931	Local pilot
Arkansas	(7,200)	15,524	No	19,926	Local option
California	(20,000)	20,222	No	29,258	State plan
Colorado	No	17,470	No	25,892	Local pilot
Connecticut	(20,000)**	15,448	No	26,898	Local pilot
Delaware	(18,000)*	14,955	Yes	24,625	Local pilot
District of Columbia	NA	18,479	NA	32,067	Local plan
Florida	Yes	16,782	No	22,250	Local option
Georgia	(16,000)*	14,329	Yes	23,046	State plan
Hawaii	Yes	16,395	Yes	26,038	No
Idaho	No	14,165	No	20,971	Local option
Illinois	(11,000)	16,448	Yes	27,172	Local pilot
Indiana	(5,200)	—	Yes	24,248	Local pilot
Iowa	No	—	No	21,802	No
Kansas	No	—	No	22,644	Local initiative
Kentucky	(12,170)	14,360	Yes	20,948	Local pilot
Louisiana	Yes	—	Yes	20,460	Local pilot
Maine	(13,500)	—	No	19,583	Local pilot
Maryland	Yes	—	Yes	26,580	Local option
Massachusetts	(18,000)*	15,664	No	26,800	Local option
Michigan	No	—	No	29,461	No
Minnesota	No	17,105	No	27,360	Local initiative
Mississippi	(14,875)*	13,875	Yes	18,472	State plan
Missouri	(15,000)*	—	No	21,974	Local option
Montana	No	—	No	22,482	No
Nebraska	No	13,937	No	20,834	Local option
Nevada	No	16,672	No	25,606	No
New Hampshire	No	—	No	20,263	Local initiative
New Jersey	(18,500)	—	No	28,000	Local option
New Mexico	(18,000)*	15,870	No	22,526	No
New York	No	18,500	No	30,490	Local option
North Carolina	(13,410)	15,680	Yes	22,476	Local pilot
North Dakota	(15,000)*	—	No	20,815	No
Ohio	(13,700)	—	Yes	24,988	No
Oklahoma	(15,060)	16,361	Yes	22,444	Local initiative
Oregon	No	16,790	No	25,664	No
Pennsylvania	(6,500)	—	Yes	26,006	No
Rhode Island	(4,000)	—	No	29,470	Local initiative
South Carolina	(14,172)	14,908	Yes	21,428	Local pilot

Table 5 (continued)

State	1985–86 Statewide Minimum Salary (amount)[a]	1985–86 Average Starting Salary (amount)[b]	State Salary Schedule[c]	1985–86 Average Teacher Salary[b]	State Performance Pay Program[d]
South Dakota	No	13,643	No	18,095	No
Tennessee	(13,940)	15,536	Yes	21,800	State plan
Texas	(15,200)	16,416	Yes	24,419	State plan
Utah	No	15,112	No	22,229	Local option
Vermont	Yes	12,911	Yes	20,379	No
Virginia	No	—	No	23,388	Local pilot
Washington	(16,500)*	—	Yes	26,182	Local option
West Virginia	Yes	18,913	Yes	20,625	State plan
Wisconsin	No	—	No	26,720	Local pilot
Wyoming	No	18,550	No	27,461	No

NOTES: * mandated minimums for 1986–87; ** minimum for 1988–89, district participation voluntary; all but three districts have volunteered.

[a]Data from ECS survey, 1986, and Nelson et al. (1986).

[b]Data from Nelson et al. (1986).

[c]Data from ECS survey, 1986.

[d]Data from SREB (1986) and ECS survey, 1986.

However, the average teacher in 1971–72 had only 10 years of experience, whereas the average teacher in 1985–86 had 16.5 years of experience. When increases in teacher experience over that period are taken into account, similarly situated teachers remain worse off financially—by a factor of about 15 percent —than their counterparts of a decade ago. (See Fig. 7.) In part, the recent gains in average salaries can be attributed to the aging of the teacher workforce. This occurred as young, lower-paid teachers were laid off because of reductions in force in the late 1970s, and few beginning teachers were hired during that period of time (Nelson et al., 1986).

Nonetheless, all 50 states reported increases in average teacher salaries in 1985–86, ranging from 0.8 percent in Hawaii to 16 percent in Mississippi. Over the last several years, southern states, which historically have not paid teachers very well, have reported some of the highest gains in average teacher salaries. In addition to Mississippi's large increases, Texas, North Carolina, Oklahoma, Georgia, Alabama, and South Carolina have all raised teachers' salaries more than 20

SOURCE: Nelson et al. (1986), p. 2

Fig. 6—Trends in annual teacher pay, 1956-1986
(in 1986 dollars)

percent over the past two years. Average salaries across the country now range from $18,095 in South Dakota to $41,647 in Alaska. (See Table 6.)

Between 1980–81 and 1985–86, the U.S. average rose from $17,364 to $25,240—an increase of 45 percent. In Georgia, the average teacher's salary rose 49 percent during the five-year period—from $15,444 to $23,046. In California, the average teacher's salary rose 59 percent during the five year period—from $19,648 to $29,258. Table 7 indicates the relative rankings of states' average salaries over the time period, highlighting improvements in such states as Minnesota (from 22nd to 9th), New Jersey (from 15th to 7th), and Virginia (42nd to 26th). Of course, one state's improvement in nationwide salary rankings must come at the expense of another state's ranking. The table also indicates those states whose relative salary position declined

Table 6

TRENDS IN AVERAGE TEACHER SALARIES, BY STATE, 1983–84 TO 1985–86

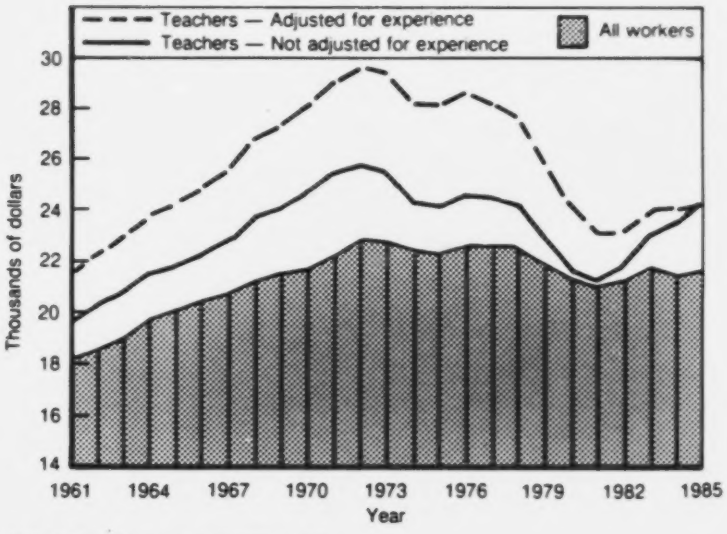
State	Average Salary 1983–84	Rank	Average Salary 1984–85	Rank	Average Salary 1985–86	Rank	Percent Change 1983–84 to 1984–85	Percent Change 1984–85 to 1985–86	Percent Change 1983–84 to 1985–86
Alaska	$35,500	1	$38,923	1	$41,647	1	9.6%	7.0%	17.3%
District of Columbia	27,659	2	30,706	2	32,067	2	11.0	4.4	15.9
New York	27,319	3	28,213	4	30,490	3	3.3	8.1	11.6
Rhode Island	25,337	5	27,693	5	29,470	4	9.3	6.4	16.3
Michigan	27,125	4	28,440	3	29,461	5	4.8	3.6	8.6
California	24,843	6	27,293	6	29,258	6	9.9	7.2	17.8
New Jersey	23,264	14	25,125	13	28,000	7	8.0	11.4	20.4
Wyoming	24,500	7	26,499	7	27,461	8	8.2	3.6	12.1
Minnesota	24,350	10	25,453	12	27,360	9	4.5	7.5	12.4
Illinois	24,211	11	25,679	9	27,172	10	6.1	5.8	12.2
Connecticut	22,627	19	24,822	14	26,898	11	9.7	8.4	18.9
Massachusetts	23,169	15	24,618	15	26,800	12	6.3	8.9	15.7
Wisconsin	22,811	17	24,577	16	26,720	13	7.7	8.7	17.1
Maryland	24,046	12	25,563	10	26,580	14	6.3	4.0	10.5
Washington	24,420	8	25,505	11	26,182	15	4.4	2.7	7.2
Hawaii	24,357	9	25,842	8	26,038	16	6.1	0.8	6.9
Pennsylvania	22,703	18	24,192	19	26,006	17	6.6	7.5	14.5
Colorado	23,276	13	24,454	17	25,892	18	5.1	5.9	11.2
Oregon	23,155	16	24,378	18	25,664	19	5.3	5.3	10.8
Nevada	22,355	20	22,518	24	25,606	20	0.7	13.7	14.5
Ohio	21,880	21	23,000	20	24,988	21	5.1	8.6	14.2
Delaware	20,934	26	22,294	25	24,625	22	6.5	10.5	17.6
Texas	20,170	27	22,610	23	24,419	23	12.1	8.0	21.1
Indiana	21,538	23	22,854	21	24,248	24	6.1	6.1	12.6
Arizona	21,642	22	22,662	22	23,931	25	4.7	5.6	10.6
Virginia	19,676	30	21,277	28	23,388	26	8.1	9.9	18.9

Table 6 (continued)

State	Average Salary 1983–84	Rank	Average Salary 1984–85	Rank	Average Salary 1985–86	Rank	Percent Change 1983–84 to 1984–85	Percent Change 1984–85 to 1985–86	Percent Change 1983–84 to 1985–86
Georgia	18,631	37	20,606	34	23,046	27	10.6	11.8	23.7
Alabama	18,600	38	20,295	38	22,934	28	9.1	13.0	23.3
Kansas	19,411	33	21,038	30	22,644	29	8.4	7.6	16.7
New Mexico	21,003	24	21,811	26	22,526	30	3.8	3.3	7.3
Montana	21,000	25	21,749	27	22,482	31	3.6	3.4	7.1
North Carolina	18,311	41	20,812	33	22,476	32	13.7	8.0	22.7
Oklahoma	18,580	39	19,974	42	22,444	33	7.5	12.4	20.8
Florida	19,497	32	20,836	32	22,250	34	6.9	6.8	14.1
Utah	20,007	29	21,170	29	22,229	35	5.8	5.0	11.1
Missouri	19,274	34	20,452	37	21,974	36	6.1	7.4	14.0
Iowa	20,149	28	21,008	31	21,802	37	4.3	3.8	8.2
Tennessee	18,244	42	20,474	35	21,800	38	12.2	6.5	19.5
South Carolina	17,384	47	20,143	40	21,428	39	15.9	6.4	23.3
Idaho	18,075	43	20,471	36	20,971	40	13.3	2.4	16.0
Kentucky	19,660	31	20,225	39	20,948	41	2.9	3.6	6.6
Nebraska	18,785	36	19,781	43	20,834	42	5.3	5.3	10.9
North Dakota	19,261	35	20,068	41	20,815	43	4.3	3.6	8.1
West Virginia	17,489	45	19,563	44	20,625	44	11.9	5.4	17.9
Louisiana	18,400	40	19,491	45	20,460	45	5.9	5.0	11.2
Vermont	17,568	44	18,996	47	20,379	46	8.1	7.3	16.0
New Hampshire	17,376	48	18,577	49	20,263	47	6.9	9.1	16.6
Arkansas	17,424	46	19,100	46	19,926	48	9.6	4.3	14.4
Maine	17,328	49	18,935	48	19,583	49	9.3	3.4	13.0
Mississippi	15,812	51	15,924	51	18,472	50	0.7	16.0	16.8
South Dakota	16,480	50	17,380	50	18,095	51	5.5	4.1	9.8
U.S. Average/Total	$21,974		$23,551		$25,240		7.2	7.2	14.9

considerably over the last five years: the District of Columbia (from 13th to 22nd), Hawaii (from 5th to 15th), Iowa (from 27th to 37th), and Kentucky (from 31st to 41st).

Beginning teachers' salaries have increased more steeply than average salaries over the past two years, as states and school districts have sought to attract new college graduates into teaching to fill a growing number of vacancies. In one year (from 1984–85 to 1985–86), beginning teachers' salaries in California, Connecticut, Florida, Georgia, Nevada, and Oklahoma increased by more than 10 percent. During this same time period, New Jersey's and New York's beginning salaries grew 17.3 and 23.6 percent, respectively, as a result of the imposition of a statewide minimum salary. For the 34 states that responded to an American Federation of Teachers survey, the average beginning teachers salary grew from $15,420 in 1984–85 to $17,073 in 1985–86, an increase of 10.7 percent, and ranged from $12,911 in Vermont to $20,222 in California (Nelson et al., 1986).



SOURCE: Nelson et al. (1986), p. 22.

Fig. 7—Trends in annual teacher pay, controlling for work experience
(mean annual earnings in 1986 dollars)

Table 7

AVERAGE TEACHER SALARIES, BY STATE, 1980–81, 1984–85, AND 1985–86

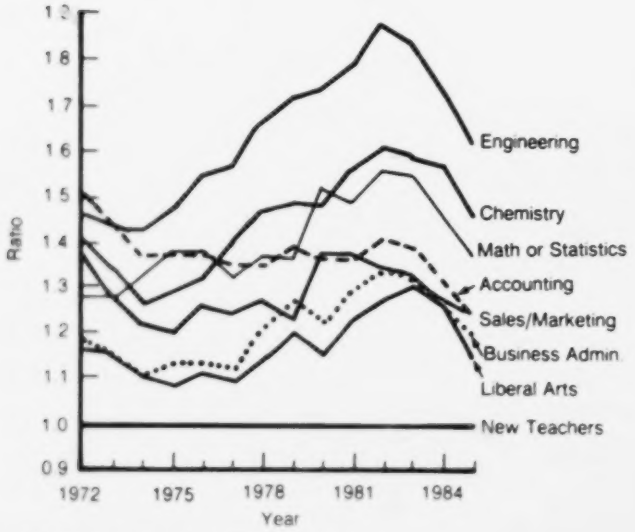
State	Average Teacher Salary			Rank			Percent of U.S. Average		
	1980–81	1984–85	1985–86	1980–81	1984–85	1985–86	1980–81	1984–85	1985–86
Alabama	$15,150	$20,295	$22,934	36	38	28	87%	86%	91%
Alaska	29,000	38,923	41,647	1	1	1	167	165	165
Arizona	17,359	22,662	23,931	21	22	25	100	96	95
Arkansas	13,270	19,100	19,926	49	46	48	76	81	79
California	19,648	27,293	29,258	10	6	6	113	116	116
Colorado	17,734	24,454	25,892	17	17	17	102	104	103
Connecticut	17,440	24,822	26,898	20	14	10	100	105	107
District of Columbia	22,823	30,706	32,067	2	2	2	131	130	127
Delaware	18,625	22,294	24,625	13	25	22	107	95	98
Florida	15,404	20,836	22,250	34	32	34	89	88	88
Georgia	15,444	20,606	23,046	32	34	27	89	87	91
Hawaii	20,993	25,842	26,038	5	8	15	121	110	103
Idaho	15,146	20,471	20,971	37	36	40	87	87	83
Illinois	19,518	25,679	27,172	11	9	9	112	109	108
Indiana	16,878	22,854	24,248	24	21	24	97	97	96
Iowa	16,150	21,008	21,802	27	31	37	93	89	86
Kansas	15,250	21,038	22,644	35	30	29	88	89	90
Kentucky	15,580	20,225	20,948	31	39	41	90	86	83
Louisiana	14,900	19,491	20,460	39	45	45	86	83	81
Maine	13,994	18,935	19,583	47	48	49	81	80	78
Maryland	19,286	25,563	26,580	12	10	13	111	109	105
Massachusetts	18,288	24,618	26,800	16	15	11	105	105	106
Michigan	21,057	28,440	29,461	4	3	5	121	121	117
Minnesota	17,182	25,453	27,360	22	12	9	99	108	108
Mississippi	13,000	15,924	18,472	51	51	50	75	68	73
Missouri	15,422	20,452	21,974	33	37	36	89	87	87

Table 7 (continued)

State	Average Teacher Salary			Rank			Percent of U.S. Average		
	1980–81	1984–85	1985–86	1980–81	1984–85	1985–86	1980–81	1984–85	1985–86
Montana	15,967	21,749	22,482	28	27	31	92	92	89
Nebraska	14,675	19,781	20,834	41	43	42	85	84	83
Nevada	17,700	22,518	25,606	18	24	20	102	96	101
New Hampshire	14,109	18,577	20,263	44	49	47	81	79	80
New Jersey	18,300	25,125	28,000	15	13	7	105	107	111
New Mexico	16,944	21,811	22,526	23	26	30	98	93	89
New York	21,316	28,213	30,490	3	4	3	123	120	121
North Carolina	15,858	20,812	22,476	29	33	32	91	88	89
North Dakota	14,881	20,088	20,815	40	41	43	86	85	82
Ohio	16,200	23,000	24,988	26	20	21	93	98	99
Oklahoma	14,640	19,974	22,444	43	42	33	84	85	89
Oregon	18,500	24,378	25,664	14	18	18	107	104	102
Pennsylvania	17,690	24,192	26,006	19	19	16	102	103	103
Rhode Island	19,803	27,693	29,470	9	5	4	114	118	117
South Carolina	14,108	20,143	21,428	45	40	39	81	86	85
South Dakota	13,636	17,380	18,095	48	50	51	79	74	72
Tennessee	14,073	20,474	21,800	46	35	38	81	87	86
Texas	15,715	22,610	24,419	30	23	23	91	96	97
Utah	16,612	21,170	22,229	25	29	35	96	90	88
Vermont	13,235	18,996	20,379	50	47	46	76	81	81
Virginia	14,649	21,277	23,388	42	28	26	84	90	93
Washington	20,702	25,505	26,182	6	11	14	119	108	104
West Virginia	14,948	19,563	20,625	38	44	44	86	83	82
Wisconsin	20,062	24,577	26,720	8	16	12	116	104	106
Wyoming	20,438	26,499	27,461	7	7	8	118	113	109
U.S. Average/Total	$17,364	$23,550	$25,240				100	100	100

The AFT survey analyzed the (unadjusted) salaries of beginning teachers as compared with those of college graduates entering other occupations in the private sector. Beginning salaries for college graduates in other fields are still higher than those for new teachers. In 1985, entry-level engineers started at salaries that were 62 percent more than those for beginning teachers; liberal arts graduates started at salaries that were 14 percent higher. However, the AFT data reveal that the earnings advantage of these white collar occupations is at the lowest since about 1978 (see Fig. 8).

All of these trends suggest adjustments in the labor market for teachers, an effort to regain lost ground in terms of salary competitiveness with other occupations, and increased competitiveness among states in bidding for the talents of new teachers. These compensation initiatives have been accompanied by enhanced recruitment efforts and more innovative pay packages (Wise et al., 1987), and will probably influence the distribution of teacher talent across states and districts,



SOURCE: Nelson et al. (1986), p. 38

Fig. 8—Ratio of beginning salaries for college graduates in selected fields to beginning teacher salaries

giving the edge to those that have taken the lead. The initiatives reflect the tighter labor market for teachers, caused by declines in the numbers of college graduates preparing to teach, increases in demand for teachers, and increases as well in demand for college graduates in other occupations (Darling-Hammond, 1987). What remains to be seen is whether teacher salaries can catch up and keep pace with compensation in competing fields, and whether the career prospects will prove sufficient to increase teacher supply to the levels needed.

One unintended side effect of the boosts in beginning teacher salaries over the last several years is that they have significantly narrowed the overall salary range for teachers in many states, reducing the difference between salaries for beginning and experienced teachers. In fact, the average beginning salary is now 66 percent of the average teacher's salary in the United States. As Table 5 indicates, in 1985–86 the average teacher in Arkansas, Florida, Idaho, Kentucky, Maine, Mississippi, Oklahoma, South Dakota, Tennessee, and West Virginia, with about 15 years of experience, earned at most about $6,000 more than a beginning teacher. If prospective and beginning teachers' career decisions are responsive to career earnings prospects, this truncated salary range may dissuade many from entering or remaining long in the profession.

MINIMUM SALARIES AND STATEWIDE SCHEDULES

Many states have dramatically improved their beginning teacher salaries by mandating a minimum compensation level that all districts must meet. As Table 5 indicates, several states—such as California, Delaware, Massachusetts, New Jersey, New Mexico, and Texas—have required that teacher salaries begin at $18,000 or more. Generally, the state provides all or part of the additional funds needed to bring district starting salaries up to the state minimum. New Mexico's $18,000 minimum for 1986–87 is particularly dramatic, given that in 1985–86 the *average* teacher's salary was only $22,526. Connecticut has proposed an incentive plan to push beginning teachers' salaries to $20,000 by 1989.[1]

Other states that mandated minimum salaries for the 1986–87 school year include Missouri ($15,000) and North Dakota ($15,200).

[1]In Connecticut, participating school districts receive grants for the amount needed to bring the district teacher salaries to the minimum for each year. Districts with current teacher salaries below $18,000 may receive additional funding to meet the minimum goals. District participation is voluntary; to qualify for grants for the 1986–87 school year, districts had to be willing to reopen collective bargaining negotiations.

Maine, which mandated a $13,500 minimum for 1985–86 has already mandated a $15,500 minimum for 1987–88 (AACTE, 1986). Florida's governor had recommended statewide beginning teachers' salaries to be set at $18,000 in 1986–87, $20,000 in 1987–88, and $22,000 in 1988–89, but his proposal was defeated in the legislature.

In some states—such as Indiana, Illinois, and Rhode Island—there is a longstanding mandated minimum salary that now accounts for only 20–30 percent of a teacher's total salary. In Indiana, for example, the mandated minimum salary for a teacher with a bachelor's degree and no experience is $5,200. In Rhode Island, the figure is $4,000. Local districts supplement the minimum state compensation—generally through collective bargaining agreements with the teachers association.

As this suggests, mandated minimum salaries have very different effects from state to state. Aside from those states—like the ones mentioned above—where the policy is vestigial in nature, there are a number (such as North Carolina, Texas, and Tennessee) in which minimum salaries fall below the current state average starting salary, affecting only the lowest-paying districts in the state. In others, like Delaware, Georgia, Massachusetts, and New Mexico, the minimum salary enacted in 1986–87 was well above the previous year's average starting salary, and will therefore exert upward pressure on most of the states' districts.

Fewer than 20 states have implemented mandated salary schedules prescribing specific wage increments for step increases due to education (degrees and number of college credit hours earned) and years of experience. In several states—such as Georgia, North Carolina, and South Carolina—the state pays nearly all of the teacher compensation bill. Local school districts may supplement the state's basic compensation. Depending on its wealth, a local school district may increase a teacher's salary from 3 to 15 percent above the state minimum salary schedule.

For states that do not have mandated salary schedules, teacher compensation policy is left up to local districts and the collective bargaining agreement between boards and the teachers' association. There is no direct correlation between the level of teacher compensation and the presence or absence of a state salary schedule. On average, the salaries of teachers in states with mandated schedules are somewhat lower than those in states without such schedules. This is largely because mandated schedules predominate in the traditionally lower-paying southern states. The highest-paying states, such as Alaska and New York, do not have mandated salary schedules.

In states that do have mandated salary schedules, teacher pay increases are heavily reliant on the continued willingness of the state

legislature to upgrade the schedule, particularly where there is a cap on local supplementation. As evidenced by the sample salary schedule below (derived from a school district in the South), an experienced teacher may be guaranteed a raise of only about 2 percent a year. For example, a teacher with 10 years experience and a master's degree would earn $24,335 in both basic state compensation ($21,893) and local supplement ($2,442). The next year, this teacher would have 11 years experience and would earn $24,841—an increase of $507 (slightly more than a 2 percent raise).

However, as the years wear on, the increases become even smaller. A teacher with 17 years experience and a master's degree will earn $27,872, whereas one with 18 years of experience will earn $28,094—an annual increase of $222 (significantly less than a 1 percent raise). In the two years from "step 18" to "step 20" a teacher would receive only a $278 raise. In the five years from "step 20" to "step 25" a teacher would receive an average raise of $111.20 a year. Hypothetically, a teacher with 25 years of experience may be 47 years old, earn $28,650 with a guaranteed annual increment of 0.5 percent, and have little expectation of further economic progress at a time when colleagues in other professions are just reaching their peak earning power. This illustrates the flat career and compensation structure for teachers, which has given rise to proposals for career differentiation and performance-based pay.

PERFORMANCE-BASED COMPENSATION

During the 1980s, the states became quite active in developing, piloting, and implementing programs that compensate teachers based on performance standards. In large measure, the states have created differentiated pay systems to satisfy policymakers who believe that only the most productive teachers should receive substantial salary increases. In some cases, political and financial support for entire state school reform packages hinged upon the enactment of a program to reward teachers for how well they do their job, not just for their years of teaching experience or number of college degrees.

Since the release of *A Nation At Risk*, teacher performance-based compensation systems have developed rapidly. In early 1983, no state was paying teachers on the basis of performance. By late 1986, all but seven states had considered one of several types of performance-based compensation systems—either a merit pay, career ladder, master teacher, mentor teacher, or incentive pay program. According to a 1986 report by the Southern Regional Education Board (SREB), 29

Table 8

SCHOOL DISTRICT SALARY GUIDE FOR TEACHERS, 1986–87

Step	Class 8 Doctorate		Class 7 Master's + 30		Class 1 Master's		Class 2 Bachelor's + 18		Class 3 Bachelor's	
	20,378		18,863		17,348		15,833		15,151	
0	2,273	22,651	2,104	20,967	1,935	19,283	1,766	17,599	1,690	16,841
	20,984		19,318		17,802		16,242		15,484	
1	2,341	23,325	2,155	21,473	1,986	19,788	1,812	18,054	1,727	17,211
	21,590		18,772		18,257		16,666		15,909	
2	2,409	23,999	2,206	21,978	2,037	20,294	1,859	18,525	1,775	17,684
	22,196		20,227		18,711		17,075		16,318	
3	2,476	24,672	2,256	22,483	2,087	20,798	1,905	18,980	1,820	18,138
	22,802		20,681		19,166		17,499		16,742	
4	2,544	25,346	2,307	22,988	2,138	21,304	1,952	19,451	1,868	18,610
	23,408		21,136		19,621		17,908		17,151	
5	2,611	26,019	2,358	23,494	2,189	21,810	1,998	19,906	1,913	19,064
	24,014		21,590		20,075		18,333		17,575	
6	2,679	26,693	2,409	23,999	2,240	22,315	2,045	20,378	1,961	19,536
	24,620		22,045		20,530		18,742		17,984	
7	2,747	27,367	2,459	24,504	2,290	22,820	2,091	20,833	2,006	19,990
	25,226		22,499		20,984		19,166		18,408	
8	2,814	28,040	2,510	25,009	2,341	23,325	2,138	21,304	2,054	20,462
	25,832		22,954		21,439		19,575		18,818	
9	2,882	28,714	2,561	25,515	2,392	23,831	2,184	21,759	2,099	20,917
	26,439		23,408		21,893		19,999		19,242	
10	2,949	29,388	2,611	26,019	2,442	24,335	2,231	22,230	2,147	21,389

Table 8 (continued)

Step	Class 8 Doctorate		Class 7 Master's + 30		Class 1 Master's		Class 2 Bachelor's + 18		Class 3 Bachelor's	
	27,045		23,863		22,348		20,408		19,651	
11	3,017	30,062	2,662	26,525	2,493	24,841	2,277	22,685	2,192	21,843
	27,651		24,317		22,802		20,833		20,075	
12	3,085	30,736	2,713	27,030	2,544	25,346	2,324	23,157	2,240	22,315
	28,257		24,772		23,257		21,242		20,484	
13	3,152	31,409	2,764	27,536	2,594	25,851	2,370	23,612	2,285	22,769
	28,863		25,226		23,711		21,666		20,908	
14	3,220	32,083	2,814	28,040	2,645	26,356	2,417	24,083	2,333	23,241
	29,469		25,681		24,166		22,075		21,317	
15	3,287	32,756	2,865	28,546	2,696	26,826	2,463	24,538	2,378	23,695
	30,075		26,135		24,620		22,499		21,742	
16	3,355	33,430	2,916	29,051	2,747	27,367	2,510	25,009	2,426	24,168
	30,681		26,590		25,075		22,908		22,151	
17	3,423	34,104	2,966	29,556	2,797	27,872	2,556	25,464	2,471	24,622
	Step 17		Step 17		Step 17					
18	+ $222	34,326	+ $222	29,778	+ $222	28,094	—	25,464	—	24,622
	Step 18		Step 18		Step 18		Step 18		Step 18	
20	+ $278	34,604	+ $278	30,056	+ $278	28,372	+ $139	25,603	+ $139	24,761
	Step 18		Step 18		Step 18		Step 18		Step 18	
25	+ $556	34,882	+ $556	30,334	+ $556	28,650	+ $278	25,742	+ $278	24,900
	Step 18		Step 18		Step 18		Step 18		Step 18	
30	+ $834	35,160	+ $834	30,612	+ $834	28,928	+ $417	25,881	+ $417	25,039

NOTE: The salary amounts in each cell of the schedule reflect (1) the basic state compensation, (2) the local supplement, and (3) the total salary (1 + 2).

states have either enacted statewide programs or have provided funds for local development or implementation (SREB, 1986).

However, funding problems have forced several states to pull back on their commitment to implement a performance-based compensation system. Multi-tiered career ladders have already proved to be quite expensive. (Tennessee committed over $250 million in three years to its career ladder program.) Consequently, states that are now in the development stage are tending to rely on pilot programs or modified incentive plans that may need less long-range commitment in terms of funding.

In many cases, reduction of funds may jeopardize the fragile political alliances required to launch the programs. In Maine, for example, the state teachers association is backing off from a three-tiered master teacher plan in part because basic salaries are so low—placing the state 48th in the nation for next year. And in South Carolina, the teacher association's support for career ladder pilots has hinged upon increases in average salaries to at least the regional average. "If the political community reneged on the Southeastern average [commitment], then we would no longer be a part of the consortium," said the state association president (Olsen, 1987, p. 17).

State efforts to enact and implement performance compensation systems for teachers have been quite visible as well as controversial. Proponents claim that performance-based compensation systems will (1) meet the public's concern for teacher accountability, (2) enhance the status of teachers, (3) motivate teachers to teach better, and (4) attract and retain talented individuals in classrooms. On the other hand, opponents argue that the systems, as designed to date, (1) are "bureaucratic nightmares," (2) create unhealthy competition among teachers, and (3) reduce morale (Olsen, 1987).

Performance-based compensation systems for teachers have come and gone for over 70 years. Historically, most systems failed within five years—primarily because of inadequate methods for judging meritorious teaching, administrative problems, and insufficient funding (see, e.g., Johnson, 1984; Murnane and Cohen, 1986; and Olsen, 1986). Nonetheless, the educational reform movement of the 1980s has engendered another wave of attempts to pay better teachers more; when the fall-out is finished, some of them may stick.

Several different types of performance-based compensation systems have been advanced during the 1980s reform movement. Moreover, program labels—such as merit pay, career ladders, master or mentor teacher, and incentive pay—are used differently in different states. For clarity, we will use the following definitions to describe state policy trends related to performance-based compensation systems.

Merit pay programs are intended to financially reward outstanding teachers for doing their job well. The system may identify superior teachers through any one of a number of sources—a district or state teacher evaluation instrument, student achievement data, or teacher-developed portfolios. Generally, merit pay is to be delivered in the form of an annual bonus, not incorporated into the teacher's base pay, and awarded on a yearly basis depending on performance evaluations for that year.

Career ladder programs create a new job structure over the course of the teaching career, allowing teachers to progress through staged titles and responsibilities. Promotion is based on an assessment of professional achievements, providing further opportunities for professional growth and financial rewards as well as additional duties. These opportunities are provided through the creation of a hierarchy of job classifications and a differentiated salary schedule (usually an add-on to a teacher's regular salary) ranging from $1,000 in several states to a proposed $9,000 in Georgia.

Master teacher programs reward individuals on the basis of superior performance, but without establishing a graduated career structure. They generally also require that these teachers assume additional tasks. In some cases, these programs provide additional compensation if teachers supervise others (such as beginning teachers). Such programs are generally called mentor teacher programs. If mentor teacher status is permanent (rather than a year-to-year appointment), a mentor teacher program may resemble a two-rung career ladder. California, the first state to implement a mentor teacher program (in 1983), requires that a mentor spend 40 percent of his time working with teachers on curriculum and instruction, conducting workshops, and conducting peer observations.

Many states are piloting a combination of the above models—mixing elements of merit pay, career ladder, or master teacher programs. In some cases, such as South Carolina, states call these *incentive pay* programs.

Finally, some incentive programs do not increase teacher compensation, but attempt to identify "superior" teachers and provide them extra resources to develop and disseminate innovative curricula. We will label these programs *teacher incentive* programs.

In practice, the distinctions among state-implemented performance-based compensation systems have become muddied. For example, Utah's career ladder program includes only two levels—regular teacher and master teacher. Texas's career ladder does not require teachers to take on added duties in exchange for their bonuses. Two of the incentive pay models being piloted in South Carolina are almost identical,

even though one model is called a "career ladder" and the other is called "bonus pay."

In 1986, the Southern Regional Educational Board classified the kinds of teacher performance-based compensation programs being considered, developed, or implemented in the United States. Table 9 is an adaptation of its typology using the states' own program labels. In analyzing the programs, however, we will use the definitions outlined above. Over the last several years, several trends have emerged with respect to state performance-based compensation programs. These trends include:

- A deemphasis on labeling state programs "merit pay."
- A shift from state-designed and mandated programs to locally designed approaches with voluntary participation.
- An emphasis on career ladder pilot programs.
- The piloting of other performance-based and teacher incentive programs.
- Program modifications and, sometimes, abandonment because of problems associated with performance evaluation, eligibility requirements, and adequate funding.

NO MORE MERIT PAY

Merit pay for teachers—the performance-based compensation instrument initially favored by state legislative and business leaders—has been a politically difficult instrument to enact and implement, because the policy generally requires that a small proportion (often a fixed quota) of teachers be rewarded differentially *primarily* on the basis of performance evaluations. In the past, a teacher's evaluation has been more likely to be viewed as a subjective, rather than a reliable or valid, assessment of performance. Teacher associations have contended that present teacher evaluation systems are "not sophisticated enough to determine who is outstanding and who is not." Rarely have traditional evaluation programs been designed to provide the time, expertise, and resources needed to produce assessments sufficiently credible to be used for personnel decisionmaking (Wise et al., 1984).

In some cases, resistance to merit pay can be attributed to the strong egalitarian culture that is characteristic of the teacher workforce.[1] This resistance has been especially prevalent in states that have placed quotas on the number of teachers who can attain "master"

[1]See Dan Lortie's (1975) discussion of the egalitarian culture of the teacher workforce.

Table 9

PERFORMANCE-BASED COMPENSATION PROGRAMS, 1986

State	Local Initiative Only	Pilots with State Funding or Assistance	Full Implementation of State Program	State Program Under Development	Date Enacted (Implemented)	Type of Program
Alabama				X	1985 (87–88)	Career Ladder
Alaska					—	
Arizona		X			1985 (85)	Career Ladder
Arkansas		(Not Funded)			1985	Career Development
California			X		1983 (84)	Mentor Teacher
Colorado		X			1985 (88)	Teacher Incentive/Career Ladder
Connecticut		X			1984 (84)	Teacher Incentive
Delaware		X			1984 (86–87)	Career Development
Florida[a]			X(1)	X(2)	1983 (1)	(1) School Incentive;
					1986 (2)	(2) Career Ladder
Georgia				X	1985	Career Ladder
Hawaii					—	
Idaho				(Not Funded)	1984	Career Ladder
Illinois		X			1986 (86)	Teacher Incentive
Indiana		X			1985 (85)	Teacher Incentive
Iowa					—	
Kansas	X				—	Teacher Incentive
Kentucky		X			1984 (86–87)	Career Ladder
Louisiana		X (1987)			1985 (87–88)	Career Ladder/School Incentive
Maine		X			1985 (85)	Tiered Certification Incentive
Maryland	X				1984	Career Development Incentive
Massachusetts			X		1985 (86)	Teacher Incentive
Michigan					—	
Minnesota	X				—	Teacher Incentive
Mississippi			X		1985 (87–88)	Teacher Incentive
Missouri			X		1985 (86–87)	Career Ladder

Table 9 (continued)

State	Local Initiative Only	Pilots with State Funding or Assistance	Full Implementation of State Program	State Program Under Development	Date Enacted (Implemented)	Type of Program
Montana					—	
Nebraska				X	1984	Career Ladder
Nevada					—	
New Hampshire	X				—	Teacher Incentive
New Jersey			X		-	Teacher Incentive
New Mexico					—	
New York			X		1986 (86–87)	Teacher Incentive
North Carolina		X			1984 (85–86)	Career Ladder
North Dakota						
Ohio					—	Career Ladder
Oklahoma						Teacher Incentive
Oregon	X					Teacher Incentive
Pennsylvania			X		1984 (85)	Teacher Incentive
Rhode Island	X					Teacher Incentive
South Carolina		X	X			(1) Teacher Incentive; (2) School Incentive
South Dakota					1985 (repealed)	—
Tennessee			X		1984 (84–85)	Career Ladder
Texas			X		1984 (84–85)	Career Ladder
Utah			X		1984 (84–85)	Career Ladder
Vermont	X					Teacher Incentive
Virginia		X			1984 (84–85)	Career Ladder/Teacher Incentive
Washington			X		1985 (85–86)	Mentor Teacher
West Virginia				X		Teacher Incentive
Wisconsin		X			1985 (85–86)	Career Ladder/Teacher Incentive
Wyoming					—	

SOURCE: Adapted from SREB (1986), p. 9.

[a]1983 merit pay program in Florida was repealed and is to be replaced by a career ladder program.

teacher status. Teacher associations have objected to the quotas placed on the number of teachers who could receive a reward. With quota systems, merit pay has been alleged to create "favoritism," "unhealthy competition," and "jealousy" among teachers.

In 1983, the Florida legislature passed the first 1980s version of a state-mandated merit pay program for teachers. (A few states enacted such mandates during the 1950s, but all of them were repealed within a short time (Darling-Hammond, 1984b)). The Florida Meritorious Instructional Personnel Program was enacted, developed, and implemented within a year. In large part, state policymakers believed that a master teacher program could engender more support for teacher salaries by convincing the business community that only the best teachers would be receiving significant salary increases.

The legislation required that the meritorious teacher have: (1) four years of teaching experience, (2) a superior score on a subject area test (or a master's degree), and (3) a rating of superior on a performance evaluation assessment. The State Department of Education implemented the program.

The merit pay legislation called for an annual award of $3,000 to the most highly qualified teachers. The award was subject to annual appropriations and annual evaluations, thus creating uncertainty and recurring assessment burdens. In the first year (1984–85), $9.5 million was appropriated and 3 percent of the state's teachers qualified (about 10 percent of those who applied). In 1985–86, $1.85 million was appropriated—providing approximately $500 for qualified master teachers.

In 1986, the program was abandoned by the legislature, which cited (1) consistent union opposition, (2) a lack of communication with teachers regarding the purpose of the program, and (3) a failure to reward all but a small segment of the state's teachers. There were other reasons for the failure of the merit pay program. In the haste to implement a plan quickly, huge numbers of applications were lost, computers (that were to read test answers) were programmed incorrectly, and the State Department of Education sent administrators to sites where no tests were being administered and scheduled tests without notifying applicants.

In addition, there was a serious problem with the performance evaluation system used to assess superior teaching. First, the system—the Florida Performance Measurement System—was designed to assess beginning teachers for minimal competencies, not experienced teachers for excellence in teaching. Second, experienced teachers (especially those trained to be peer evaluators in the beginning teacher program for which the evaluation instrument was initially developed)

could easily perform well for the evaluation. Finally, teachers did not accept the FPMS, since they were not involved in its development and did not view it as validly measuring teaching performance.

The failure of the merit pay plan was epitomized by the fact that Florida's 1986 teacher of the year failed to qualify for a bonus. Teacher unions claimed the idea was basically flawed. The business community claimed that the state department of education fouled up the program when it established implementation rules and regulations. The state department claimed that the legislature did not give the department enough time to set up an effective program. The right answer is probably "(d) all of the above."

Last year the Florida legislature redesigned the program in the form of a career ladder plan to be locally negotiated, designed (within broad state guidelines), and implemented. The law creating the new program requires at least $90 million in funding by 1988, or the program will automatically expire (Olsen, 1987). Florida retains a school incentive plan in which districts may participate voluntarily, and which awards bonuses to teachers in schools judged by local criteria to be meritorious. This type of approach, where it has been implemented, has provoked less resistance than individual merit pay awards.

Difficulties in achieving broad-based and continuing support for merit pay plans have torpedoed the idea in most places. Although merit pay initiatives were proposed and, in some cases, tried in other states, no state currently has an operational merit pay program, as we have defined it here. Task force proposals in Kansas and Mississippi have been tabled; Maine's Teacher Recognition Program enacted in 1984 is now defunct and the legislature is considering eliminating the "master teacher" step of the three-tier certification structure; New Jersey recently abandoned its master teacher program and replaced it with a number of other incentive programs. Other states that initially investigated the idea of merit pay have opted instead for career ladder programs, which restructure the teaching career and provide opportunities for teachers to use their skills in many areas.

CAREER LADDERS

Unlike merit pay, career ladders were initially designed to reward teachers not only for outstanding teaching, but also for taking on more job responsibilities and participating in professional development. Advancement up the career ladder may require a teacher to take on supervisory and other duties, such as curriculum development. To prevent talented teachers from being taken out of the classroom, some

plans call for teachers to be released from classroom responsibilities for only a limited number of days. Many require teachers to participate in a wide range of professional or self-improvement activities.

As of 1986, at least 18 states had enacted or were developing career ladder plans (Cornett, 1986). In contrast to the earliest initiatives enacted in 1983–84, more recent plans rely heavily on local involvement in design and piloting rather than on a state-designed and implemented approach. Furthermore, existing plans are undergoing modification, as problem areas are identified and more promising avenues are explored.

Tennessee, one of the first states to implement a career ladder (in 1984), has tied advancement on its five-rung ladder to state certification. Continued certification and promotion are determined by a state evaluation process as well as by the length of a teacher's extended contract and duties outside the classroom. Tennessee has an elaborate multicomponent evaluation system for judging a teacher's eligibility for advancement up the ladder. The process includes (1) reading, writing, and professional skills tests; (2) six classroom observations; (3) questionnaires distributed to students, teachers, and principals; (4) a summary of the teacher's leadership skills; and (5) a one-hour "dialogue" between the teacher and the evaluator. The state is also field-testing the use of student performance data as a criterion for advancement. The use of multiple criteria was intended to offset teacher concerns that any one measure would exclude a teacher from advancement up the ladder. Over 95 percent of Tennessee's teachers and administrators eligible to participate in the career ladder have applied for and advanced to one of the career levels; about 10 percent of teachers are at the upper rungs of the ladder (Cornett, 1986; Olsen, 1987).

Texas has developed a similar plan, which is state-designed and mandated and uses similar kinds of criteria for placing teachers on a five-rung ladder. However, evaluations are locally conducted rather than performed by state evaluators as in Tennessee. These are the only two states that have fully implemented a statewide career ladder. Although Alabama and South Carolina are planning to impose statewide models, they are piloting several options before deciding on a final structure. Other states are pursuing locally-designed plans implemented by local option.

Both the Texas and Tennessee plans are currently undergoing revision to address some of the problems that have emerged during implementation, including difficulties with the evaluation systems and administrative overload. A bill recently approved by the House and Senate education committees in Texas is "aimed at lowering the cost of the career ladder a little bit and reducing the level of aggravation

substantially" (Olsen, 1987). Among other things, it would reduce the number of required evaluations for teachers who are teaching well. The state teachers' association is pushing for further changes in the recently adopted evaluation instrument.

Tennessee teachers are also disenchanted with the career ladder evaluation system, described by the Tennessee Education Association president as "a statistical mishmash." Ninety-one percent of the respondents to a recent T.E.A. poll felt the system could not differentiate between good and excellent teachers, and 85 percent did not believe it could work fairly or effectively (Olsen, 1987). Revisions recently approved by the House and Senate education committees would reduce the bureaucracy that has grown up around the evaluation system, shift some responsibility for testing to local school districts, and reduce the number of evaluations for teachers on the upper ends of the career ladder.

To avoid some of these problems, other states are piloting programs and encouraging local districts to work out design issues without the restrictions of a state mandate. However, ongoing evaluation difficulties, combined with poor funding prospects, are slowing the pace of implementation. Planned implementation or expansions of career ladder pilots are on hold in North Carolina, Kentucky, New Mexico, Arkansas, Louisiana, Nebraska, and Alabama. In Utah, where local plans have continued to receive state funding support during difficult economic times, the prospects for continuation are considered tenuous (Olsen, 1987).

The shift in Florida from a state-mandated merit pay program to a locally designed but state supported career ladder is illustrative of the kinds of approaches now being pursued in a number of states. In 1986, the Florida legislature passed a three-step career ladder. Each school district is authorized to adopt and submit a proposal for a career achievement program for public school teachers. The plans are to be implemented beginning with the 1987–88 school year. To gain SDE approval, a district program proposal must provide for voluntary participation, be negotiated locally, and ensure that program applicants will spend at least 50 percent of their time in direct work with students.

Unlike the merit pay program, which essentially provided temporary bonuses for a few teachers, the career ladder is designed to establish a permanent career achievement path for a large number of Florida's teachers. The program was created with strong involvement from the state's two teacher associations, and 40 of the state's 67 districts have applied to participate in the first year, assuming that the legislature appropriates the estimated $90 million needed to launch it.

In contrast to the "first wave" efforts to enact performance-based compensation schemes, the "second wave" initiatives have sought to

involve teachers and local districts more intensively and have therefore engendered less opposition. In some states, such as Alabama and Utah, the plans have been actively supported by teacher associations (Olsen, 1987); in others, at least quiescent cooperation has been forthcoming. As discussed below, the greatest question at this point is whether, given at least a modest level of political acceptance, the technical and management issues associated with career ladder plans can be resolved and whether continued financial support will be forthcoming.

PROBLEMS IN IMPLEMENTING PERFORMANCE-BASED COMPENSATION PLANS

Of the states implementing performance-based compensation systems, many have experienced problems in developing evaluation schemes that can identify superior teachers credibly and without deflecting substantial amounts of time away from the primary work of educators.

Several state evaluation systems have used observation checklists in which raters (usually principals) simply mark behaviors "observed" or "not observed." These instruments have generally been adopted from programs initially designed to evaluate the basic skills of beginning teachers. Although having the advantage of appearing to be objective (by relying on tallies of behaviors rather than evaluator judgments), these approaches have been criticized as failing to capture the important features of good teaching (MacMillan and Pendlebury, 1985; Wise and Darling-Hammond, 1987), particularly when the goal of the assessment is identifying excellent rather than merely minimally competent teachers.

In one state, evaluation procedures were originally designed using criteria that were made known only to evaluators, not teachers. In another state, the evaluation procedure was developed the year after the career ladder was implemented. These approaches have, not surprisingly, been a source of serious concern and opposition from teachers.

To enhance the reliability of performance evaluations, many states have begun to increase the training requirements of observers and evaluators as well as the number of evaluations required of participants. In most cases, school principals have been primarily responsible for the performance evaluations related to an incentive pay program. Although the increased number of teacher evaluations and the training of principal raters enhance the perception that the process is reliable,

fair, and objective, principals complain that they are becoming overwhelmed by the work.

In some states, teachers are being used as "peer evaluators." This practice alleviates the workload of the principal and may enhance the validity of the evaluation process. However, in many places, teachers are still hesitant to evaluate their peers.

Several states—South Carolina, Georgia, Florida, Kentucky, Alabama, Arizona, Utah, and Tennessee—have mandated the use of student achievement data as a criterion for identifying superior teachers. Most state and school district plans call for a portfolio of outcome data that present evidence of student growth. In some cases, student achievement outcomes may be revealed either by standardized or by teacher-made tests. However, initial assessments of these programs indicate that technical assistance has not been available to school districts to work with teachers in developing ways to document student achievement. Case studies conducted in South Carolina revealed that a major roadblock to using student achievement data in assessing teacher performance is the lack of training that teachers have in tests and measurement (Berry et al., 1987).

Another set of issues is raised by the definition of eligibility standards. Although some plans limit participation only to regular classroom teachers (e.g., Arkansas, Missouri, and Alabama), a recent trend has been to expand the definition of eligible "teacher" to include such personnel as librarians, guidance counselors, vocational education coordinators, and school psychologists. In South Carolina, the regulations were written in such a way that attendance clerks were eligible and applied for a merit pay bonus. Obviously, a single set of evaluation standards cannot be easily applied to personnel with such varying job descriptions. This diversity among eligible applicants has added considerable complexity to the programs.

The sheer size of fully implemented programs can be a source of administrative difficulties. Participation in most performance-based compensation programs is optional for currently employed teachers; in some states, it is mandatory for new teachers. Although teachers have been critical of the initial implementation of some state programs, large numbers of teachers have applied for career ladder status. In Tennessee, approximately 40,000 of the state's teachers are on the career ladder. In Texas, approximately 80,000 qualified for bonuses in 1986. This accounted for many of the administrative problems that led to revisions in the programs.

At present, many states are revising their eligibility requirements and guidelines. In the many states with local pilots, a variety of approaches to evaluation are being hammered out by local boards in

collaboration with teacher associations. The survival of career ladder programs will depend, in large part, on the ingenuity and perseverance of these test sites in developing credible and practicable solutions to the issues of evaluation.

OTHER PERFORMANCE-BASED AND TEACHER INCENTIVE PROGRAMS

Some states have, at least for the moment, opted out of the tricky issues of career ladder development altogether, creating functional incentives based on the notion that teachers' talents can be put to greater use in schools, rewarding some good teachers in the process. A variety of incentive plans and "master teacher" programs seek to encourage peer assistance, curriculum enhancement, and the development of promising teaching practices by providing stipends to selected teachers for these kinds of contributions.

Several states—such as Alabama, California, New York, and Washington—have enacted or implemented master/mentor teacher programs. California, in 1983, enacted its mentor teacher program. The intent of this program is to select mentor teachers on the basis of exemplary teaching and then allow these teachers to receive extra pay for curriculum development and working with other teachers. Sixty percent of the mentor's activity must be classroom teaching. Under this optional (incentive) program, up to 5 percent of a district's teachers can qualify and receive a $4,000 stipend—half of which is paid for by the district and half by the state. In 1985, 740 of the state's 1000+ school districts implemented the program.

Local definitions of the program vary significantly. Some districts use mentors to offer assistance to beginning teachers; others engage in curriculum development or similar activities. In some places, mentors are rather like ambassadors-without-portfolio, seeking to carve their own niche in an undefined terrain. Those districts with strong staff development programs have been able to implement the program more easily. In addition, larger school districts have a greater capacity—by hiring substitutes and completing the required paperwork—to implement the program. Most districts that have implemented the program have used the additional funds to pay teachers solely for doing more work. It has been estimated that only 20 percent of the districts have treated the program as a way to reward excellent teaching (Wagner, 1986).

In addition, teacher time in mentoring varies considerably across districts. It has been reported that some mentors receive their stipend

and complete a project at their "leisure," whereas others must document each hour of mentoring and complete "230 approved hours" before receiving their stipend. Most *mentoring* time is spent working with teachers on curriculum and instruction. But relatively little of mentors' time is spent in this way. A 1985 survey indicated that mentors were spending 90 percent of their time working with students.

Several states have enacted and implemented teacher incentive programs that do not reward teachers by paying them more, but by providing some with additional resources (generally $500 to $1000) to develop and disseminate innovative curricula. In Arkansas, for example, teachers may apply for grants of up to $1,000 annually to develop programs to share their exemplary teaching practices with others. Programs are selected on the basis of their creativity, versatility, and appropriateness for meeting students' needs and improving student performance. At the end of the year, the five teachers who have developed the most promising programs receive an additional $500 to develop training materials and disseminate them to fellow teachers.

In Massachusetts, several types of teacher incentive programs have been established. One program allows teachers to be awarded extra compensation up to a maximum of $2,500 for taking on additional responsibilities. These include training teachers, developing curricula, providing special assistance to potential dropouts, and serving as in-service instructors or consultants. These teachers are to be selected on the basis of criteria established by the state board of education. However, the selection process is subject to local collective bargaining agreements. Another program provides teachers with a fellowship so that they may create exemplary educational programs.

New Jersey recently abandoned its statewide master teacher program, but replaced it with a number of incentive programs. Included are: (1) awards for "outstanding teachers," (2) grants for developing innovative curricula, and (3) the piloting of another master teacher program. Specifically, these incentive programs will enable the state to: (1) identify and recognize 100 exemplary teachers and provide a forum for them to share their expertise, (2) allocate up to $15,000 to creative teachers who develop and disseminate effective classroom strategies, and (3) identify 5 percent of a district's teachers and award them a $5,000 stipend for taking on additional duties (including conducting research, tutoring students, or devising new instructional strategies).

These kinds of programs tend to engender little opposition; however, when scattered about and funded at relatively low levels, they may also do little to improve instruction or motivate teachers. The potpourri approaches may also be vulnerable to funding cuts in hard times because their efficacy will be difficult to assess and establish.

PROSPECTS FOR THE FUTURE

As previously mentioned, performance-based compensation systems—especially structured career ladders—require substantial as well as long-term financial commitments. Policymakers have paid close attention to Tennessee's three-year, $250 million investment. Several states—especially oil-producing ones—have been experiencing severe financial problems and have been delaying the implementation of their performance-based compensation systems. New Mexico, Louisiana, and Arkansas are among those states that recently enacted programs but delayed implementation. Some states have been more apt to continue their pilot projects instead of moving ahead with statewide implementation. In some states, incentive pay programs have become more attractive because they do not demand the long-term financial commitment inherent in structured career ladder programs.

On the other hand, states like Utah, South Carolina, and California have significantly increased their funding. Utah doubled its first year funding to $36 million in 1985–86 and provided an additional $4.5 million in 1986–87. Although South Carolina has delayed statewide implementation, the state tripled its financial commitment to pilot programs from 1985–86 to 1986–87.

California has increased the funding for its mentor teacher program from $10.8 million in 1983–84 to $45.75 million in 1986–87. However, because of an increase in the teacher pool, the additional $1 million increase from 1985–86 to 1986–87 did not allow for greater teacher participation. California intended to fund 5 percent of each district's teachers. Yet its efforts to date have enabled limited participation—from 2.8 percent of the teachers in participating districts in 1984–85 to 4.75 percent in both 1985–86 and 1986–87.

Although states have by and large become more cautious, some local districts—especially wealthy ones—are making significant financial commitments. For example, while the State of Virginia provided $500,000 for pilot projects over two years, Fairfax County (outside Washington, D.C.) decided to implement its own career ladder and anted up an additional $6 million in career ladder pay for teachers. Teachers in Fairfax County were initially opposed to the career ladder concept. However, an agreement between the administration and teachers was reached that gave teachers a 12.1 percent increase in 1987, an 8.8 percent increase in both 1988 and 1989, and a performance-based pay plan in 1989–90.

Sustained changes in teacher compensation levels and structures will depend not only on the continued availability of funding, but also on the ability of states, school districts, and teachers to resolve the

difficult political and technical issues associated with identifying and rewarding teacher performance. Solutions to these issues have been difficult to accomplish in the past. Performance-based pay plans flourished for a brief time during the 1920s and 1950s, but subsequently disappeared. Real increases in teacher compensation have tended to evaporate when shortages subside. Over the years ahead, we will see whether the commitment to such changes runs deeper than it has in reform eras gone by.

IV. TEACHER POLICY IN REVIEW

Teacher policy activity in the 1980s has been sweeping in its scope and quantity. Since the start of the decade, well over 1000 pieces of state legislation have been developed, and a substantial fraction have found their way into practice. Many aspects of teacher education, licensure, and compensation that were not previously targets of state regulation are now firmly under the state's purview; some state forays, particularly in the area of performance-based compensation, have proved politically or practically unmanageable and have been revised or abandoned.

The menu of state teacher policies has evolved from a fairly simple and somewhat heavy-handed set of efforts to exert control over the quality of the teaching force to a much more complex portfolio of screens and magnets for teaching, with an increased role for local school districts and teachers themselves. In this section, we discuss this transition and speculate about the future prospects for teacher policy reform.

TEACHER PREPARATION AND LICENSURE

In the area of teacher preparation and licensure, 27 states now regulate admission to teacher education; most have made changes in course requirements for certification; standards for state approval of teacher education programs have also become more highly specified. In a few states, the proportion of students passing subsequent licensure examinations has become a criterion for continued state approval of teacher education programs. Forty-one states have imposed tests for initial teacher licensure and three have imposed tests for continuing licensure. In many other states, the lifetime license has been replaced by continuing education requirements for recertification. Twenty-five states have created programs for the supervision of beginning teachers, in most cases tied to the acquisition of a continuing teaching license.

These changes indicate real efforts to regulate entry into the occupation of teaching, one of the important prerequisites for establishing a profession. However, the changes have largely come from legislatures and state agencies, and do not reflect a consensual view either within the profession or across states of what a prospective teacher ought to know or be able to do. A few states have established teaching standards boards, comprised of members of the profession and charged with

setting standards for preparation and licensure; several more are considering such a move. These boards are similar to those that set standards in other professions like law, medicine, architecture, and accounting where states have delegated responsibility for decisionmaking to professional bodies. As such, they are glimmerings of "second wave" approaches to reform, which seek to place the regulation of teaching in the hands of the profession itself.

In addition to the greater role assumed by states in making decisions about who will enter teacher education, what they will study, and who will be licensed, many states have assumed a greater role in determining how newly hired teachers will be inducted and paid. The recent enactment of programs in a number of states to ensure that beginning teachers are assisted and evaluated may reflect a view that investments in further clinical training will reap dividends for the overall level of competence in the teaching force. However, the 25 state programs vary in design and purpose. Some provide resources for beginning teacher supervision and support from mentors; others provide few resources but mandate an evaluation process to determine licensure. In the one case, the emphasis is on training and retention; in the other it is primarily on screening.

By sheer volume of legislation, it is clear that teaching has been "reformed." Tallies of teacher policies, though, do not tell the whole story about reform impulses and effects. When one peers inside the statutes and regulations, what is most evident is the acute ambivalence that many policymakers feel about the nature of teaching and the roles of teachers. There is an apparent tension between the view of teachers as professionals relying upon a rich knowledge base to serve the diverse needs of students in intellectually honest ways, and a view of teachers as semiskilled workers following cookbooks for practice. There are conflicting images of the requirements for teaching—basic literacy and practical experience in classroom management, on the one hand, or understanding of cognition and instruction as the basis for informed decisionmaking, on the other.

These competing views play themselves out in the policy arena. Although screens to the profession have been enacted, loopholes—in the form of alternative entry routes that skirt teacher preparation—have been maintained and widened. And although teacher education requirements have been more closely specified, in many cases this has meant increased practical experience and general education coursework, and decreased emphasis on the acquisition of pedagogical knowledge. Where licensure tests have been imposed, they have consisted mainly of basic skills and general knowledge examinations; such professional knowledge tests as are available are based on very little

knowledge about teaching and learning (Darling-Hammond, 1986a). Where on-the-job evaluations have been required, they have tended to adopt behavioral indicators that presume little need for teacher reflection, flexibility, or judgment (MacMillan and Pendlebury, 1985; Wise and Darling-Hammond, 1987).

By and large, the reforms to date give little support to the notion that a knowledge base for teaching, grounded in an appreciation of how children learn and how content is transformed into understanding, exists or needs encouragement. As Shulman (1987, pp. 4, 6) notes:

> The advocates of professional reform base their arguments on the belief that there exists a "knowledge base for teaching"—a codified and codifiable aggregation of knowledge, skill, understanding, and technology, of ethics and disposition, of collective responsibility—as well as a means for representing and communicating it. The reports of the Holmes Group (1986) and the Carnegie Task Force (1986) rest on this belief and, furthermore, claim that the knowledge base is growing. . . . [However,] assessments of teachers in most states consist of some combination of basic skill tests, an examination of competence in subject matter, and observations in the classroom to ensure that certain kinds of general teaching behavior are present. In this manner, I would argue, teaching is trivialized, its complexities ignored, and its demands diminished.

However, there are places, like Connecticut, California, Minnesota, and Washington, where a different conception of teaching is being pursued. In these states, efforts are being made to strengthen the foundations of teacher education, to examine and support the knowledge base for teaching, to create assessments that reflect the breadth of that knowledge base and the demands of teaching, and to give voice to the profession through partnerships with teacher education institutions and the creation of professional standards boards. Places such as these are attending to the content as well as the existence of standards, so as to create long-range incentives for talented individuals to choose teaching while improving the quality of instruction offered to students.

TEACHER COMPENSATION

State efforts to boost teacher salaries are clearly intended to attract and keep teaching talent. After a decade-long decline in real salary levels for teachers, the 35 percent nationwide increase in average salaries between 1980–81 and 1985–86 returned teachers to the average salary level of 1971–72. This increase was achieved, in part, by many states mandating minimum salary levels for teachers and by some creating statewide salary schedules or performance-based pay schemes.

However, the highest salary levels for teachers still exist in states that have not enacted such policies.

Although most states have enacted some kind of inducement or mandate to provide special compensation for good teachers, the focus of such programs has already shifted since the beginning of the decade. Enthusiasm for merit pay has dwindled; all of the early state plans and proposals have been abandoned or revised. Most state efforts now focus on career ladders, which develop a graded career structure for teachers rather than an annual bonus award. In addition, the state-designed and mandated approaches to performance-based pay enacted by a few states in the "first wave" of reform activity have not been imitated by most other states. More recent—and numerous—state plans encourage local development and piloting of career ladders rather than imposing a single model on all districts. Many other states provide recognition and support for teachers' contributions through vehicles like mentor teacher programs and incentives for the development of promising practices.

The greatest challenges to the continuation of these financial incentive plans are both technical and political in nature. Fair and credible evaluation processes for awarding special status to teachers are a prerequisite for both short- and long-term viability of the programs. In the short-term, evaluation problems can undermine both teacher and administrator support for the initiatives, by creating cynicism among teachers, if decisions seem arbitrary or invalid, and resistance among administrators, if time demands and administrative headaches deflect them from their central educational tasks. Such problems have caused several plans to be abandoned and others to undergo revision over the past few years. Most states are now proceeding with locally developed pilot programs to test and refine evaluation strategies outside the constraints of regulatory strictures.

In the long term, performance-based pay plans must prove to educators and the public that they in fact produce improvements in the quality of education—either by retaining more of those teachers generally acknowledged to be expert, or by improving the general standards of teaching practice. Such proof will be necessary to sustain continued political support for funding and continued professional support for implementation. As noted above, performance-based pay plans that were enacted in the 1920s and 1950s had disappeared for lack of such support long before the reform era of the 1980s.

This requirement will necessitate greater attention in the coming years to matters of substance rather than form. The short-term bargain between policymakers and the public during the first wave of reform was an increase in education spending in exchange for more

discriminating use of public funds by requiring teacher tests and pay-for-performance. The "no test, no tax" slogan that underlay teacher testing reforms in many states was echoed as well in the political dialogue about merit pay. Policymakers could achieve the desired ends by enacting proposals that would provide at least the appearance of greater rigor in selecting and rewarding teachers. Sometimes they did so with more speed than foresight, and with little attention to the content of the tests or the validity of evaluation procedures.

By and large, the short-term goals of these reforms have been achieved. Teachers' salaries, if not competitive, are now at least not a blatant disincentive to enter the occupation. The concepts of teacher testing and pay-for-performance, if not palatable, are at least tolerable to members of the profession. What must now occur is careful shaping of these policies to ensure that they are educationally meaningful. For the reforms to be sustained, members of the public and the profession will need reason to believe that those individuals who pass competency tests indeed know more about teaching than those who do not; that teachers who receive special status are in fact especially effective with children; that the existence of career ladders or other incentive pay plans really encourages talented individuals to enter and remain in teaching; and that the tasks assumed by master teachers actually contribute to the effectiveness of schools and the well-being of students.

The next generation of teacher policy reform will need to focus on the content and nature of effective teaching, its assessment, and its deployment within schools to ensure that the long-range goals of the reformers are met. It is at this juncture that the involvement of the profession is critical, for state policy can constrain but not construct the conditions under which knowledge about teaching is produced, transmitted, and employed on behalf of those students who are its ultimate beneficiaries.

GOVERNANCE OF TEACHING POLICY

What emerges most prominently in a review of teacher policy over the last several years is that governance of the teaching enterprise is up for grabs—and there are lots of people grabbing. As reforms have been enacted, the respective roles of state boards, executive agencies, local boards, institutions of higher education, and teacher organizations have shifted in kaleidoscopic fashion. With each turn of the reform agenda, another configuration comes briefly into focus, but the patterns shift so rapidly that the players are left scrambling to find their places in the newly evolving picture.

The pace of change and the continual re-engagement of competing interests in the legislative arena have produced some curious outcomes. Paradoxically, although state standards for teacher education and licensure have become more highly specified, 23 states have created alternative routes to certification that allow candidates to bypass the admissions and course requirements enacted by those same states. And although many states have assumed responsibility for some decisions normally left to other institutions—for example, removing much authority for admissions and graduation decisions from institutions of higher education and for compensation and promotion decisions from local employers—they have also in many cases delegated previously state-controlled decisions to local employers. The most obvious instance of this occurs in beginning teacher programs where school district personnel are authorized to make decisions about which candidates can receive continuing state licenses. And although many reforms have been undertaken in the name of teacher professionalization, professional organizations have, until recently, often been excluded from the deliberations.

As we noted at the start of this report, there has long been a tension between public and professional control of education, with reform movements alternately seeking to strengthen both the public and professional prerogatives over how teaching is structured and governed. Meanwhile, educational policymaking has become increasingly centralized at the state (and to a lesser extent, federal) level, and school districts have been consolidated into large administrative units, so that public control no longer takes place in the interactions between town councils and the local schoolteacher but in the halls of central offices and state legislatures, where the needs of particular students and schools tend to be dimly understood and generally incapable of resolution.

Tom Green aptly describes the current dilemma of policymakers who seek to achieve improvement at a distance from the targets of their efforts (1983, pp. 322–323):

> Public policy is a crude instrument for securing social ideals. We would not use a drop-forge to quarter a pound of butter or an axe to perform heart surgery. Public policy is the drop-forge or the axe of social change. It is not the knife or scalpel. That is to say, public policy deals with gross values. It deals with the common good, not with my good in particular or my neighbor's or the good of us both together. Policy deals always with what is good in general, on the whole, and for the most part. . . . It is true that government can't do everything we desire, and therefore, it is equally true that public policy is not the fit instrument to secure all our desires. For example, even if we knew what is needed to make every school excellent and

> every teacher a paradigm of wisdom in the care of children, it would remain doubtful that we could express this knowledge in public policy and thus secure the good we seek. . . . Minimizing evil is a proper aim of public policy. Maximizing good is probably not. The latter assumes that we may shape the axe into a scalpel.

Currently, policymakers find themselves at a crossroads with respect to teacher policy: Having used the tools at their disposal to enforce and stimulate changes in the structure of the teaching occupation, they must now decide how to sustain and refine these initiatives in ways that will best serve the public good. If Green is right, then the better part of valor will be to find mechanisms for responsibly delegating those matters that cannot be resolved by legislation, as appropriate, to local districts, schools, teachers, and to professional bodies. Determining how and when such limits on legislation should be considered—and how alternative modes of accountability can be achieved—is the task of the second wave of reform.

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